

The Level of Knowledge, Awareness and Sustainable Practices among Merlimau Melaka Polytechnic Campus Residents

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Abstract

This research paper was produced to study and examine the level of awareness, knowledge, and sustainable energy practices among the people of Merlimau Melaka Polytechnic Campus as one of the efforts in dignifying and creating a sustainable campus. This study was carried out quantitatively by distributing a survey form to all campus residents and a total of 499 respondents participated in this survey. Findings from this study will be analyzed to determine the level of awareness of campus residents and then formulate plans to create a high level of awareness while practicing sustainable energy practices at the Merlimau Melaka Polytechnic Campus. From the research carried out it was found that the level of awareness and knowledge of campus residents is high, however the level of practice towards campus sustainability is still low. For that, an effort is needed to improve and empower sustainable energy practices at Merlimau Melaka Polytechnic campus to ensure that a sustainable campus can be established.

Keywords: Sustainable, Campus, Awareness, Knowledge, Practices

INTRODUCTION

The most recent development in the application of campus sustainability at the international level is the culture of the sustainability principle in public higher education institutions and other educational institutes. Norfadillah, et al. (2011) state that numerous measures have been undertaken at the university and international levels to guarantee that the sustainability concept is understood by people on a global scale at every level. This is one of the techniques used to educate the university community about the value of environmental protection and to provide exposure to and in-depth knowledge of the sustainability idea itself. Students, faculty, and support workers on campus are all included in the sustainability notion that is advocated in educational institutions.

Campus Sustainability

Campus sustainability can be described as an institution's effort to address pollution issues and reduce the negative impact on the environment, social and economic health, and resource

use by organising teaching, research, outreach, and partnerships to assist communities in transitioning to style sustainable living (Velazquez et al 2006).

Social, economic, and environmental sustainability are all included in the definition of sustainability. To maintain the community's sustainability in the future, the university, which is a research institution, must emphasise the importance of sustainability in its emphasis on education for developing future leaders (Tillbury et al. 2010).

LITERATURE REVIEW

Humans and other living organism need healthy ecosystems and environment to provide vital goods for them. Nowadays, a growing number of people means rising levels of resources consumption per capita. This rising energy consumption are depleting our natural resources and thus degrading the environment. Therefore, sustainable development is crucial to meet the need of the present generations without compromising the future generations, (Msengi. et.al., 2018).

Buana & Wimala, 2018 defined that a Sustainable Campus is an environmentally oriented campus that integrates environmental science into its policies, management, and scholarly activities. In order to preserve our environment, higher education institutions have shown commitment to develop sustainable campuses, (Sugiarto. et.al., 2022).

The Sustainable Campus concept must be put into practice since, according to numerous studies, stakeholders at universities that adopt it report much higher levels of satisfaction and better perceived quality of life than stakeholders at universities that do not, (Tiyarattanachai & Hollmann, 2016). Additionally, implementing a sustainable campus promotes energy efficiency and conservation, (Pham. et.al., 2019).

The Sustainable Campus has also been adopted by a number of international universities. Stanford, one of the greatest greenhouses, has implemented Sustainable Campuses in three steps, according to the STARS (Sustainability Tracking Assessment and Rating System). Academicians are first introduced to the specific requirements for supply, energy, water, land, waste, management, food, life, buildings, and transportation for campus development. Second, it makes thorough and long-lasting assessments of Stanford using STARS. Finally, it talks about how the connection between Stanford and its surrounding communities has evolved, (Zhu., et.al., 2020).

METHODOLOGY

This study was conducted quantitatively wherein data was collected based on survey questions that were distributed to respondents. The respondents involved in this survey were students, academic staff, non-academic staff and the management of Politeknik Merlimau Melaka (PMM).

DISCUSSION OF ANALYSIS AND FINDINGS

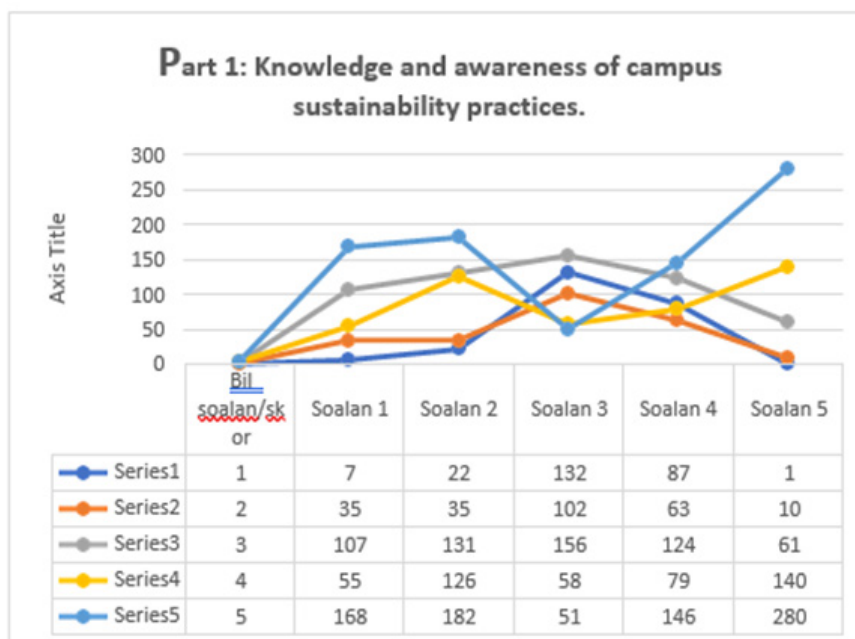


Figure 1.1: Result for the awareness and knowledge of sustainability

Based on the results in Figure 1.1, we can see that the highest percentage of respondents agree with question 5 which is a question about water saving practices and also for question 4 which is about electricity saving practices. These results show that over 80% of respondents know about water saving practices and over 90% of respondents know about electricity saving practices. This shows that the level of awareness of the respondents towards the issue of waste has increased. However, there are as many as 32.7% of respondents who answered not sure about the concept of sustainable. This shows that there is still a large part of campus residents who still do not clearly understand the concept of sustainability.

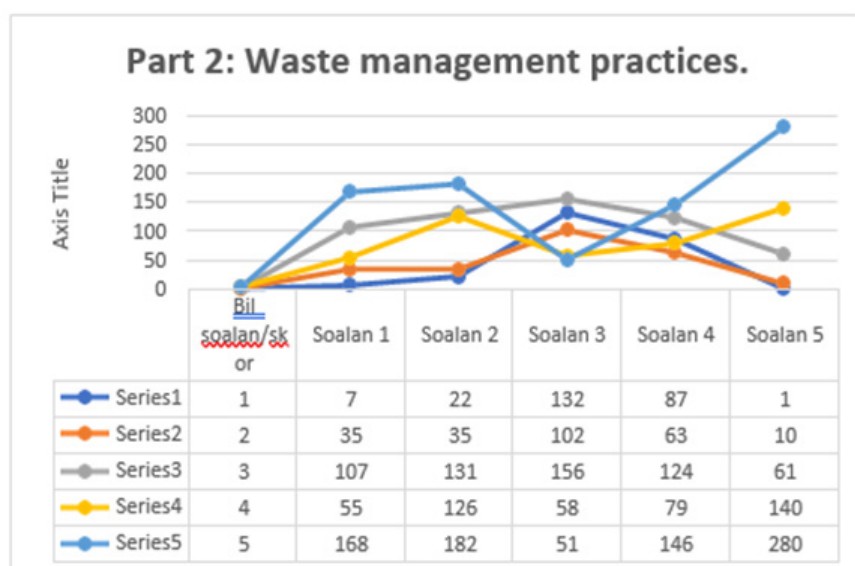


Figure 1.2: The result for waste management practices

CONCLUSION AND FUTURE RESEARCH

In an effort to preserve the environment in general and the Merlimau Melaka Polytechnic campus in particular, the first thing that needs to be paid attention to is the level of awareness of campus residents regarding the knowledge and importance of environmental sustainability. This is because when the awareness is high then various efforts can be implemented to make the Merlimau Melaka Polytechnic campus a sustainable campus. Next, when awareness and knowledge can be increased, then the practice is also easier to practice. This research paper can help the polytechnic management in making an assessment of the level of awareness and knowledge as well as in designing related efforts in improving sustainable practices among campus residents. The importance of these sustainable practices can be seen through current climate change as well as better environmental management to ensure that the goal of environmental sustainability can be achieved.

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REFERENCES

- Azlin, A. Z. B., Er, A. C., Rahman, N. B. A., & Alam, A. F. (2016). Consumers' roles and practices towards sustainable UKM campus. *International Journal of Advanced and Applied Sciences*, 3(2), 30-34.
- Buana, R. P., Wimala, M., & Evelina, R. (2018). Pengembangan indikator peran serta pihak manajemen perguruan tinggi dalam penerapan konsep green campus. *RekaRacana: Jurnal Teknil Sipil*, 4(2), 82.
- Choy, E. A., Basan, N. A., Hussin, R., Zei, L. H., Wahab, A. A., Mustapa, F. L., ... & Nawi, N. F. M. (2017). Inisiatif kelestarian kampus: Tahap pengetahuan, kesedaran dan amalan lestari di kalangan kakitangan dan pelajar di Universiti Kebangsaan Malaysia. *Journal of Global Business and Social Entrepreneurship*, 3, 65-73.
- Mikalauskienė, A., & Atkočiūnienė, Z. O. (2019). Knowledge management impact on sustainable development. *Montenegrin Journal of economics*, 15(4), 149-160.
- Moganadas, S. R., Corral-Verdugo, V., & Ramanathan, S. (2013). Toward systemic campus sustainability: Gauging dimensions of sustainable development via a motivational and perception-based approach. *Environment, development and sustainability*, 15, 1443-1464.
- Msengi, I., Doe, R., Wilson, T., Fowler, D., Wigginton, C., Olorunyomi, S., ... & Morel, R. (2019). Assessment of knowledge and awareness of "sustainability" initiatives among college students. *Renewable Energy and Environmental Sustainability*, 4, 6.
- Pham, N. T., Tučková, Z., & Phan, Q. P. T. (2019). Greening human resource management and employee commitment toward the environment: an interaction model. *Journal of Business Economics and Management*, 20(3), 446-465.
- Sugiarto, A., Lee, C. W., & Huruta, A. D. (2022). A systematic review of the sustainable campus concept. *Behavioral Sciences*, 12(5), 130.
- Tiyarattanachai, R., & Hollmann, N. M. (2016). Green Campus initiative and its impacts on quality of life of stakeholders in Green and Non-Green Campus universities. *SpringerPlus*, 5, 1-17.
- Zhu, B., Zhu, C., & Dewancker, B. (2020). A study of development mode in green campus to realize the sustainable development goals. *International Journal of Sustainability in Higher Education*, 21(4), 799-818.