



Assignment

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Assignment on: Concrete Methodology and Results Discussions on Green Education

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Concrete Methodology

To effectively raise awareness regarding Green Education and computing in the academic framework of East West University, a structured and multi-faceted approach is employed. Our study's approach is quantitative and qualitative, involving collecting primary data through surveys, discussions with faculty members, and direct discussions with the university authorities to facilitate awareness programs. The whole process is designed to assess existing levels of knowledge and perception of **“Green education”** among students and teachers, identify key gaps in awareness, and implement strategies to promote sustainability within the academic institutions.

The first step of the study involved developing a questionnaire to gauge student's understanding and awareness of Green Computing and Sustainable Education. The questionnaire was designed using Google Forms, ensuring accessibility and ease of participation. The contents of the survey focused on fundamental concepts of green computing, including energy efficiency, sustainable practices in technology usage, and eco-friendly computing habits. Questions were framed in multiple-choice format, allowing respondents to choose from predefined answers such as “Agree”, “Disagree”, and “No idea” to ensure clarity in responses and facilitate effective data analysis. Some of the key questions included: “ Recycling computer hardware helps save the environment”, “Screen savers save energy”, “Cloud-based systems are more eco-friendly”, and “Ink printers use more energy than laser-based printers”. These questions were chosen to reflect common misconceptions and knowledge gaps in Green Computing practices and to evaluate the depth of Understanding among students. By structuring the questions in a way that targeted key areas of concern, our study was able to collect key insights into a student's perspective on sustainability.

In addition to surveying students, faculty members were also engaged in discussions to understand their viewpoints on integrating Green education within the university's curriculum. Professors from different departments were consulted to gather their perspectives on the relevance of sustainability-focused courses and the potential challenges of incorporating such topics into academic programs. Parallel to these efforts, engagement with university higher authorities was a crucial component of our approach. Recognizing the importance of institutional support, formal meetings were arranged with administrators to present objectives of green computing awareness and advocate for the inclusion of greening-focused initiatives. Convincing university authorities of the significance of green education was instrumental in gaining institutional backing for future projects, such as curriculum modifications, sustainable campaigns, and digital resource allocation.

Upon receiving approval, seminars and workshops were conducted within the university premises. The initial awareness session, titled “ What is Green computing?”, was designed to address fundamental misconceptions regarding sustainable computing and introduce students to key concepts such as energy-efficient computing, e-waste management, and cloud-based applications. The seminar involved expert speakers, interactive discussions, and multimedia presentations to ensure a comprehensive and engaging learning experience.

The effectiveness of our initiative was evaluated by analyzing the responses collected from the questionnaires before and after the awareness programs. The pre-seminar survey responses provided a baseline observation of students’ awareness levels, while post-seminar feedback helped assess the impact of awareness efforts. The study also aimed to evaluate student engagement and participation levels in workshops, as this was a critical factor in determining the long-term sustainability of the Green Education initiative.

Furthermore, qualitative insights were gathered from student feedback, faculty discussions, and observation during seminars. These insights were used to refine future strategies, ensuring that green Computing awareness programs could be further optimized for engagement, effectiveness, and accessibility. It was our observation that even though students were reluctant to participate in the experimentation at first, within time and through interactive, hands-on sessions, they started to engage more and more in understanding the long-term implications of Green Education.

Overall, the approach employed in this study combined survey-based assessments, faculty and administration engagement, seminar-based interventions, and evaluation feedback mechanisms to create a comprehensive approach toward raising awareness about Green Education within East-West University.

Results and Discussion

The findings from the questionnaire responses provided a critical insight into the state of awareness regarding Green Education and Green Computing among students at East West University. The analysis of the collected data revealed that a significant portion of students lacked fundamental knowledge about environmentally sustainable computing practices. Based on the survey results, approximately 50-55% of the respondents selected “No Idea” for key recycling, screen saver energy consumption, cloud-based sustainability, and energy efficiency in printing usage. This sustainable percentage indicated serious knowledge gaps, suggesting that while students frequently engage with technology, they are largely unaware of the environmental implications of their

digital consumption habits. The lack of understanding in these core areas highlighted the urgent need for awareness programs and structured interventions to ensure that students recognize the importance of sustainable technology usage in reducing their carbon footprint.

This revelation promoted direct action through institutional engagement with the university's higher authorities. Understanding that raising awareness required structured educational interventions, formal requests were made to university officials to approve and support seminars, hands-on workshops, and student-led sustainability initiatives. After deliberation and acknowledgment of the importance of integrating Green Education within the academic environment, the authorities provided the necessary institutional backing to conduct awareness campaigns. The first phase of intervention took the form of seminars that introduced students to the fundamental concepts of Green Computing, e-waste management, and energy-efficient digital practices, these sessions provided students with the essential knowledge needed to understand the impact of computing on the environment and the practical steps they could take to mitigate their carbon footprint.

To reinforce the theoretical knowledge imparted in the seminars, hands-on workshops were conducted where students engaged in the real-world applications of Green Computing principles. One of the key initiatives introduced was tasking students with learning how to use cloud-based computing to reduce reliance on local high-energy-consuming hardware and allow for efficient resource allocation, thereby significantly reducing individual carbon footprint. This hands-on approach provided students with an interactive and immersive learning experience, bridging the gap between awareness and practical implementation. Encouragingly, the workshops were met with overwhelming enthusiasm, and post-workshop feedback indicated that 85% of students expressed a heightened interest in learning more about Green Computing and how they could incorporate sustainable digital practices into their academic and personal lives.

The comparative analysis of pre-and post-intervention responses clearly demonstrated the effectiveness of these educational initiatives. While the initial survey results reflected a concerning lack of awareness, post-workshop evaluations indicated a positive shift in students' attitudes toward sustainability. Many students who previously lacked knowledge of Green Computing concepts showed significant improvement in understanding energy-efficient computing practices, e-waste management, and sustainable digital consumption. A marked increase in engagement and willingness to adopt greener technological habits was observed, signifying that with the right

educational approach, students could be motivated to actively participate in environmental sustainability efforts.

Moreover, qualitative observations during interactive sessions and discussions revealed that students gained a newfound sense of responsibility regarding their digital habits and their impact on the environment. Many participants acknowledged the role of computing in climate change and expressed a desire to further explore green technologies, energy-efficient software solutions, and sustainable computing models. This transformation in student perception underscores the effectiveness of awareness programs in cultivating a culture of sustainability within the university.

Implication for East-West University

The success of this initiative holds profound implications for East-West University as an institution that strives for academic excellence and sustainability. The shift in student engagement and awareness highlights the potential for long-term integration of Green Education into the university's academic and extracurricular framework. The promising results from this study indicate that Green Computing should not remain a one-time intervention but should instead be institutionalized as part of the university's sustainability goals. Moving forward, the university has the opportunity to expand its Green Education initiatives by incorporating Green Computing topics into the curriculum, fostering student-led sustainability projects, and forming collaborations with industry leaders in eco-friendly technology innovations.

Furthermore, the success of the workshops and awareness programs will set a precedent for future sustainability-driven educational models within the university. With student enthusiasm at an all-time high, there is a strong case for East-West University to take a leading role in promoting environmental awareness in technology education. By institutionalizing Green Computing principles, the university can contribute significantly to the broader movement of sustainable education and responsible digital consumption, positioning itself as a pioneering institution in fostering a generation of environmentally conscious technologists.