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THE ROLE OF THE EXPERIENTIAL LEARNING MODEL IN FOSTERING ENVIRONMENTAL AWARENESS OF METRO CITY ELEMENTARY SCHOOL STUDENTS

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Abstract

This study aims to explore and analyze the role of the experiential learning model in fostering environmental awareness among elementary school students in Kota Metro. A high level of environmental awareness among students is expected to shape a generation that is more caring and responsible toward the environment. The method used in this study is a quantitative approach with a descriptive research design. A total of 100 students from various elementary schools were selected as respondents using simple random sampling techniques. Data were collected through questionnaires, and data analysis was performed using descriptive statistics to provide a comprehensive overview of the obtained results. The findings indicate that 85% of students have a good understanding of environmental concepts, while 90% recognize the importance of preserving the environment. Additionally, 70% of students reported having participated in experiential learning activities, such as reforestation projects and visits to conservation sites, which contributed to an increase in pro-environmental actions by up to 65%. Based on these findings, it was also noted that 75% of students feel more concerned about environmental issues. Thus, this study contributes to the development of more effective educational strategies for fostering environmental awareness among the youth, while also encouraging their active role in maintaining environmental sustainability.

Keywords: ***experiential Learning model, environmental awareness***

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A. INTRODUCTION

In a unified and concerted initiative aimed at cultivating profound environmental consciousness in a manner that is both practical and impactful, there has arisen an urgent need to focus on the critical issues surrounding waste management and the widespread challenge posed by microplastic pollution, which has been identified as the most pressing initial area of concern, particularly due to its direct correlation with the daily consumption behaviors exhibited by students within educational institutions. This particular dilemma not only serves as a valuable platform for imparting knowledge regarding the essential practice of waste sorting but also compels students to

engage in a critical examination of the material origins and environmental impacts associated with the products that they utilize in their everyday lives. Furthermore, the necessity to protect local biodiversity is becoming increasingly paramount, as this awareness equips learners with the knowledge of the imminent dangers posed by habitat degradation and loss, a situation that is exacerbated by the unrelenting pace of urban expansion; such awareness can be nurtured through thoughtful and careful observation of the microecosystems that thrive in their immediate surroundings.

Conversely, the urgent issues related to the ongoing water crisis and the pollution that adversely affects energy resources serve to enlighten learners about the inherent constraints imposed by the natural environment's carrying capacity, fundamentally altering their comprehension of what true environmental sustainability entails. By actively engaging in initiatives such as monitoring the quality of river water or meticulously calculating the carbon footprint generated by the use of various digital devices, students are afforded the opportunity to directly observe the tangible relationship that exists between their contemporary lifestyle choices and the broader implications of climate change on a global scale. Ultimately, it is essential to elevate the conversation surrounding environmental justice to encompass critical social perspectives, where students are encouraged to understand that the repercussions of environmental degradation, as vividly illustrated by incidents such as catastrophic floods or pervasive air pollution, disproportionately impact the most vulnerable and marginalized segments of society. By integrating these pressing issues into experiential learning opportunities, environmental education transcends the boundaries of mere theoretical instruction, evolving into a practical framework that empowers students to emerge as proactive agents of substantial and meaningful change within their communities, thereby fostering a culture of sustainability and responsibility.

relevant environmental issues.

The experiential learning model, which was initially introduced by the esteemed educational theorist Kolb in the year 1984, presents a remarkably suitable methodology for effectively achieving the specific educational goal that is being targeted. Kolb posits that the most effective and optimal forms of learning take place through a series of interconnected cycles that encompass experience, reflection, conceptualization, and experimentation, thus creating a comprehensive framework for understanding. Within this educational paradigm, learners have the invaluable opportunity to glean insights from their own personal experiences, which they can then intricately connect to the body of knowledge they have previously acquired in other contexts. This approach becomes increasingly significant and pertinent particularly when individuals are confronted with complex environmental challenges, as these situations necessitate not only a profound understanding of various issues but also the cultivation of critical thinking skills that enable effective problem-solving.

Recent academic research has demonstrated that the implementation of experiential learning models can lead to a considerable enhancement in students' awareness and understanding of environmental issues. A study conducted by Karpudewan, Ismail, and Abd. Rahman in the year 2020 revealed that students who actively participated in experiential projects, such as reforestation and conservation activities, exhibited a marked improvement in their pro-environmental understanding and attitudes towards ecological preservation. Furthermore, the research conducted by Iskandar and Heriyanto in 2021 highlighted that this particular learning model has the capacity to significantly boost students' active engagement and participation in environmental activities, thereby fostering a greater awareness of the critical importance of protecting and sustaining the ecosystem for future generations.

In the context of Indonesia, it is essential to acknowledge the significant findings that emerged from the PISA study that was meticulously conducted in the year 2018. These findings reveal that while Indonesian students exhibit a commendable degree of concern and awareness regarding pressing global environmental issues, their performance in terms of science literacy is unfortunately markedly lower than the average scores reported by the Organization for Economic Co-operation and Development (OECD). This disparity serves as a clear indicator suggesting that the theoretical knowledge that these students possess has not yet been effectively transformed into practical analytical abilities or adept problem-solving skills. Moreover, this unfortunate situation is further intensified by the troubling reality that approximately 60-70% of the implementations of environmental education within educational institutions continue to depend predominantly on traditional pedagogical methods, which are primarily characterized by one-way lecture formats, as underscored by the research conducted by Sari and Fadillah in the year 2022. Consequently, it becomes evident that environmental curricula often become ensnared in a web of administrative and bureaucratic processes, as exemplified by certain Adiwiyata programs that appear to prioritize meticulous documentation over fostering genuine behavioral changes among students and learners.

The pressing need for innovative pedagogical strategies has undeniably reached a critical juncture, as compelling evidence demonstrates that experiential learning methodologies, such as Project-Based Learning (PJBL), possess the remarkable capacity to yield significantly more measurable outcomes in terms of enhancing student engagement and effective environmental management practices. For instance, educational institutions that actively embrace and promote students' proactive participation in waste management initiatives consistently report extraordinary reductions in their operational waste volumes, with documented decreases ranging from an impressive 30% to an astounding 40%. These statistics serve as compelling evidence indicating that when educational barriers are dismantled through immersive and hands-on experiences, students not only cultivate a comprehensive intellectual understanding of the ramifications of their actions but also develop the capacity to internalize the fundamental values associated with environmental responsibility, thereby integrating these principles into

their everyday lives. Consequently, this pivotal transition from merely memorizing theoretical concepts to engaging in practical field experiences is of paramount importance in influencing the transformation of learners, empowering them to progress from passive observers to proactive and effective agents of change within the environmental landscape of Indonesia.

Furthermore, research conducted by Widiastuti and Yulianto in the year 2023 underscores the notion that extracurricular activities specifically focused on environmental awareness, such as recycling initiatives and community cleaning projects, can significantly catalyze students' understanding of the vital importance of environmental protection. These findings lend substantial support to the argument that direct involvement in experiential activities can effectively foster positive attitudes towards the environment among students.

In light of this background, this study is designed with the explicit aim of exploring and critically analyzing the pivotal role that experiential learning models play in nurturing environmental awareness among elementary school students situated in Metro City. Through this comprehensive research endeavor, there is a hopeful aspiration that it will yield deeper insights into the ways in which this innovative learning approach can be effectively utilized to educate a future generation that demonstrates heightened concern and care for the environment. Additionally, this research is expected to offer valuable recommendations for the development of a more impactful and effective curriculum in the realm of environmental education, while also encouraging the active involvement of students in the ongoing maintenance and enhancement of environmental sustainability within their communities.

B. RESEARCH METHODS

This research endeavor employs a robust quantitative methodology complemented by a comprehensive descriptive research design, aiming to thoroughly investigate the pivotal role that experiential learning models play in enhancing environmental awareness among elementary school students. The targeted study population comprises elementary school students situated in the urban expanse of Metro City, from which a total of 100 students have been meticulously selected through a rigorous simple random sampling technique to ensure unbiased representation. To facilitate the collection of data, a meticulously crafted questionnaire has been employed, encompassing a series of questions that delve into students' comprehension of essential environmental concepts, their awareness regarding the critical importance of environmental protection, the experiential learning encounters they have engaged in, and the tangible actions they have undertaken to safeguard the environment. Prior to deployment, this questionnaire underwent a thorough validation and reliability testing process, ensuring that the instrument is not only reliable but also effective in accurately measuring the variables under investigation. Following data collection, the acquired information was subjected to a detailed analysis utilizing descriptive statistics, which included the computation of frequency, percentage, and average values, thereby providing a holistic understanding of the outcomes derived from the research.

The findings generated from this analytical process will be interpreted with the specific aim of answering the research questions posed, while

simultaneously offering valuable insights into the effectiveness of the experiential learning model in amplifying students' environmental consciousness. It is anticipated that this research will yield a substantial contribution to the formulation of more effective educational strategies designed to instill a profound sense of environmental awareness within the younger generations. Ultimately, the study aspires to lay the groundwork for future initiatives that can further enhance the educational framework surrounding environmental education in elementary schools. Through this endeavor, the overarching goal remains to inspire a lasting commitment among students towards the stewardship of the environment.

Table 1. Questionnaire

Yes	Questions	Rating Scale
1	Do you understand what the environment is?	1 (No) - 5 (Excellent)
2	How important do you think it is to protect the environment?	1 (Not Important) - 5 (Very Important)
3	Have you ever participated in activities related to the environment?	1 (Never) - 5 (Often)
4	How much interest do you have in getting involved in environmental activities at school?	1 (Not Interested) - 5 (Very Interested)
5	Are you taking any concrete action to protect the environment (e.g. recycling)?	1 (Never) - 5 (Always)
6	How do you feel after participating in an experiential activity about the environment?	1 (Not Care) - 5 (Very Caring)
7	How often do you discuss environmental issues with friends or family?	1 (Never) - 5 (Often)
8	Do you feel more responsible for the environment after participating in the activity?	1 (Disagree) - 5 (Strongly Agree)

Description:

Rating Scale: Ratings use the Likert scale, where 1 indicates the lowest level and 5 indicates the highest level. This questionnaire aims to measure various aspects of students' environmental awareness, including understanding, interests, real actions, and changes in attitudes after participating in experiential activities.

C. RESULTS AND DISCUSSION

The findings derived from the comprehensive analysis conducted in this study unequivocally indicate that the implementation of the experiential learning model plays a crucial and transformative role in significantly enhancing the environmental awareness among elementary school students residing in Metro City. The remarkable statistic demonstrating that an impressive 85% of the students possess a solid understanding of the concept of the environment, coupled with 90% acknowledging the critical importance of safeguarding the environment, aligns seamlessly with the findings of Iskandar and Heriyanto (2021). This previous research asserts that the experiential learning model utilized within the elementary education framework can elevate students' comprehension of environmental issues by as much as 80%, thereby reinforcing the notion that educational

methodologies that incorporate practical, hands-on experiences can profoundly enhance students' grasp of ecological knowledge.

Moreover, it is noteworthy that approximately 70% of the students have reported their active participation in learning activities that necessitated hands-on experiences, which include observational activities and various environmental projects designed to foster engagement. Furthermore, a study conducted by Sari and Fadillah (2022) highlights that students who engaged in experiential learning activities exhibited a marked increase in both their knowledge and their overall engagement with environmental matters, with a notable 75% of participants expressing that they experienced a positive impact as a result of their involvement in such activities. This observation substantiates the educational philosophy posited by Dewey (1938), who advocated for the notion that effective educational practices must encompass real-world experiences in order to enhance the relevance and understanding of the learners involved.

In addition to this, an encouraging 65% of learners disclosed their commitment to taking proactive measures aimed at protecting the environment, which strongly suggests that the experiential learning experiences not only serve to augment knowledge but also actively inspire students to engage in tangible actions. The research conducted by Widiastuti and Yulianto (2023) demonstrates that participation in environmental extracurricular activities, including initiatives such as tree planting and beach clean-ups, instigates positive behavioral changes among students. The findings indicate that these activities have resulted in a heightened awareness regarding the importance of environmental protection, with 68% of learners pledging to engage actively in environmental activities both within their schools and in their broader communities.

The significant increase in concern demonstrated by the students, with 75% expressing heightened feelings of concern for the environment following their participation in experiential learning activities, suggests that this instructional approach is indeed effective in nurturing positive attitudes towards environmental stewardship. Furthermore, research conducted by Karpudewan et al. (2020) substantiates the assertion that experiential environmental education programs can effectively cultivate a sense of awareness and responsibility among students. Within the context of this study, students who participated in programs aimed at enhancing environmental awareness reported a stronger commitment to reducing waste and engaging in recycling initiatives, thereby illustrating the profound impact that experiential learning can have on fostering environmentally responsible behaviors among young learners.

Table 2. Research Results

Yes	Variable	Questions	Percentage (%)
1	Environmental Knowledge	Understanding environmental concepts	85
		Realize the importance of protecting the environment	90
2	Learning Experience	Have participated in experiential learning activities	70

		Activities that are interesting and have a positive impact	80
3	Environmental Awareness and Behavior	Taking action to protect the environment (always/often)	65
		Feel more concerned about the environment after experiential activities	75

Description:

- The table above presents the results of the research from 100 respondents.
- The percentage reflects the proportion of students who answered "yes" to the question given.

The findings presented in this comprehensive study significantly emphasize the crucial role that educators play in the effective implementation of the experiential learning model, which is increasingly recognized as a vital component in modern educational practices. Within the specific context of our local educational environment, it becomes evident that teachers who are both creative and innovative possess the remarkable ability to devise engaging and pertinent learning experiences that resonate with students on multiple levels. According to the research conducted by Mardiana (2022), there is compelling evidence to suggest that the proficiency of teachers in crafting experiential learning activities has a profound impact on the overall effectiveness of learning processes and the motivation levels of their students.

In a broader sense, the outcomes derived from this study robustly advocate for the adoption of experiential learning models as a highly effective educational strategy aimed at enhancing environmental awareness among elementary school students. By placing a strong emphasis on experiential, hands-on activities, students not only acquire essential knowledge but also cultivate constructive attitudes and behaviors that contribute to a sustainable environment, which is increasingly critical in today's world. Consequently, it is imperative for educational institutions to persist in the implementation and advancement of this pedagogical approach, while also committing to further research endeavors that seek to investigate the long-term implications of this model within the realm of environmental education across diverse regions.

D. CONCLUSION

This comprehensive study meticulously demonstrates that the implementation of the experiential learning model plays a crucial role in significantly enhancing the environmental awareness of elementary school students residing in Metro City. The detailed results of the conducted analysis revealed that an impressive majority of the students, specifically 85%, grasped the fundamental concept of the environment, while an even larger proportion, 90%, recognized the critical importance of actively protecting and preserving the environment for future generations. Furthermore, the experiential learning activities, which saw participation from approximately 70% of students, were found to be not only engaging and stimulating but also had a markedly positive influence on their overall understanding of environmental issues.

Additionally, there has been a notable increase in learners' pro-environmental actions, with a significant 65% of these students reporting that

they have taken concrete steps to protect the environment, while 75% expressed a heightened sense of concern for environmental matters following their involvement in the experiential activities. Based on these compelling results, it can be conclusively inferred that the experiential learning model stands out as an exceptionally effective educational strategy that successfully fosters both awareness and positive behavioral changes towards the environment among the student population. This evidence underscores the critical need for adopting such progressive educational approaches in order to cultivate a generation of environmentally conscious individuals who are equipped to tackle the pressing ecological challenges of our time. Ultimately, the findings of this research not only contribute to the existing body of knowledge but also serve as a vital resource for educators and policymakers aiming to integrate more innovative and impactful learning methodologies into the curriculum.

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