

A Study on the Need for Green Activity Program in Fostering Green Consumer Behavior in Primary Schools

Deasy Rahmawati¹⁾, Nana Supriatna²⁾, Sapriya³⁾, Astri Yuliawati⁴⁾

¹⁾Universitas Langlangbuana, Universitas Pendidikan Indonesia, Indonesia
deasyrahmawati22dr@gmail.com; derafatri35@upi.edu

^{2),3)}Universitas Pendidikan Indonesia, Indonesia

²⁾Email: nanasup@upi.edu

³⁾Email: sapriya@upi.edu

⁴⁾School of the Environment, the University of Queensland, Australia

Email: a.yuliawati@student.uq.edu.au

Abstract: The development of environmental values and pro-environmental behavior must begin from an early age, particularly within primary education. Schools, therefore, have a strategic role in shaping sustainable habits through educational interventions. This study aims to assess the need for educational programs that integrate green activities and to evaluate teachers' and principals' understanding of green consumer behavior. Using an Ex Post Facto research design and purposive sampling, data were collected from 32 fifth-grade teachers and 32 public primary school principals in Bandung, Indonesia. A validated Guttman-scale questionnaire was used, and data were analyzed using descriptive qualitative methods. The results showed that all respondents recognized the importance of implementing green activities and instilling green consumer behavior. The gap between conceptual understanding and classroom practice—particularly among teachers—indicates a need for more targeted capacity-building. This study highlights the importance of developing integrated, project-based, and contextually relevant learning models to promote environmental literacy and responsible consumption, contributing to the broader goals of environmental education and character development.

Keywords: environmental education; green activity program; green consumer behavior; primary school

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INTRODUCTION

The environmental crisis remains a pressing global concern, marked by rising greenhouse gas emissions, environmental pollution, ecosystem degradation, and excessive waste accumulation. One of the primary contributors to this issue is the unsustainable and environmentally damaging pattern of human consumption (IPCC, 2023). In this context, education plays a strategic role in instilling sustainability values and shaping responsible consumption behavior from an early age.

Environmental degradation is closely linked to daily consumption activities, including those carried out by children in school settings. As members of the consumer society, primary school students engage in actions that impact the environment, such as food choices, energy use, and waste management. Without proper guidance, these consumption patterns may evolve into habits that harm the environment in the long term. Therefore, it is crucial to instill the values of sustainable consumption through contextual and applicable education.

Environmental education plays a vital role in fostering ecological awareness, critical understanding, and environmentally responsible decision-making skills (Trihantoyo & Rahma, 2021; Cruz & Bulan, 2017). At the primary school level, character development and habit formation provide a strong foundation for introducing the concept of green consumer behavior—a form of consumption that considers environmental impact in every decision related to purchasing, usage, and disposal of goods (Kumar & Singh, 2017). However, educational approaches that specifically aim to shape this behavior remain limited in scope.

Various initiatives, such as the Adiwiyata Program, Eco-Schools, and Green School, have been developed nationally and globally to integrate sustainability values into education. Although these programs have contributed to increasing environmental awareness, their implementation in primary schools tends to be normative and administrative in nature, lacking pedagogical depth in cultivating concrete environmentally friendly consumption habits (Markusson & Longhurst, 2018; Green School International, 2020). Within the Indonesian curriculum framework, the Merdeka Curriculum offers significant opportunities through cross-disciplinary integration and project-based learning approaches. However, many schools have yet to optimize this potential to design instructional programs that explicitly nurture green consumer behavior among students.

Moreover, as a country with a Muslim-majority population, education in Indonesia places strong emphasis on religious and moral values, including those related to consumer behavior. In Islamic perspective, consumption is not merely seen as an economic activity, but also encompasses ethical and spiritual dimensions. The Qur'an and Hadith emphasize the importance of avoiding excess (israf), refraining from wastefulness (tabdzir), and recognizing natural resources as a trust (amanah) from Allah SWT. Islamic education teaches that human beings are stewards (khalifah) of the Earth, entrusted with the responsibility to protect the environment and manage resources wisely. Therefore, integrating environmental education with Islamic values can

strengthen the moral and spiritual foundation for fostering sustainable consumption behavior.

Based on these conditions, this study seeks to answer the question: To what extent do primary schools require learning programs that incorporate green activities to foster green consumer behavior? This research also examines teachers' and principals' understanding of the concepts of green activity and green consumer behavior, as well as the extent to which these principles have been implemented in classroom learning and everyday school practices.

Accordingly, the objectives of this study are: (1) To identify the level of understanding among teachers and school principals regarding the concepts of green activity and green consumer behavior; (2) To analyze existing environmental practices and habits implemented in primary schools; and (3) To describe the need for instructional programs that systematically and contextually support the development of environmentally responsible consumption behavior at the primary education level.

RESEARCH METHODS

This study employed an Ex Post Facto approach, deemed appropriate for evaluating phenomena that have already occurred without direct manipulation by the researcher. This approach was selected because the study aims to assess the extent to which green activity programs have been implemented and to explore how understanding of green consumer behavior has been formed within the primary school context, based on existing conditions and practices. In this design, the researcher does not manipulate independent variables but observes causal relationships naturally, making it relevant for identifying factors influencing the implementation of ongoing programs (Sugiyono, 2003; Goodman-Scott et al., 2022).

The selection of this design aligns with the research objectives, namely to evaluate the needs and readiness of primary schools in implementing green activity programs and to assess the level of understanding among teachers and school principals regarding green consumer behavior. The sampling technique used was purposive sampling, with explicitly defined inclusion criteria to ensure the relevance of participants to the aims of the study. The primary instrument used in this research was a closed-ended questionnaire with a Guttman scale, designed to measure three core aspects: 1) Understanding of the green activity concept, 2) Understanding of green consumer behavior, and, 3) Implementation of green practices within the school environment.

The questionnaire was developed based on literature review and indicators of environmentally friendly behavior relevant to the primary education context. Prior to implementation, the instrument was validated by experts. Content validity was assessed through expert judgment, and reliability was measured using the KR-20 coefficient, yielding a score of 0.82, which indicates good internal consistency.

Data collected were analyzed using qualitative descriptive analysis techniques, which included: 1) Data reduction, by categorizing responses into themes such as understanding, implementation, and program needs; 2) Data

display, by organizing results into tables and frequency graphs based on response percentages; and 3) Conclusion drawing, by interpreting response patterns and verifying them to ensure alignment with the research objectives. This approach is expected to produce a comprehensive overview of the need for green activity programs in primary schools and to determine the extent of understanding and environmentally responsible practices that have been adopted within school settings.

RESEARCH RESULTS AND DISCUSSION

Understanding of Green Activity and Green Consumer Behavior Concepts

The findings indicate that the majority of respondents demonstrated an understanding of the concepts of green activity and green consumer behavior. Among school principals, the level of understanding of green activity reached 89.1%, while understanding of green consumer behavior was recorded at 73.4%. Meanwhile, teachers showed levels of understanding of 70.3% and 64.1%, respectively. This discrepancy suggests that school principals, as educational managers, tend to have broader access to, and responsibility for, absorbing and responding to environmental policy issues within the school context.

Tabel 1. Teachers' and Principals' understanding of Green Activity and Green Consumer Behavior

Concept	Principals"(%)	Teachers' (%)
Green Activity	89,1	70,3
Green Consumer Behavior	73,4	54,1

On the other hand, the percentage of respondents who understood green consumer behavior was lower than those who understood green activity, with 73.4% of principals and 64.1% of teachers indicating familiarity with the concept. This finding suggests that although principals demonstrate greater understanding and support for the implementation of green activities, their comprehension of green consumer behavior remains limited (Trihantoyo & Rahma, 2021; Jaiswal & Kaur, 2020). The lower level of understanding of green consumer behavior compared to green activity reveals that the concept of sustainable consumption behavior has not yet been fully internalized in educational practice. This is consistent with the findings of Markusson and Longhurst (2018), who highlighted that many schools tend to emphasize symbolic environmental activities, such as school clean-ups or tree planting, without systematically addressing students' consumption-related mindset and decision-making.

Tabel 2. Support for the Implementation and Development of Green Activities

Aspect Asked	Principals"(%)	Teachers' (%)
The Importance of Green Activity and Green	100	100

Consumer Behavior for Students		
Implementation of Green activities in schools	100	
Socialization and habituation	93,75	98,87
Development in learning	-	100
Integration in learning content	-	100

Implementation and Development of Green Activities in Schools

Another important finding is that 100% of respondents – both teachers and principals – agreed on the importance of implementing green activities and environmentally responsible consumption behavior in primary schools. Most schools reported having implemented environmental programs such as waste management initiatives, weekly school clean-up events (e.g., "Clean Friday"), and monitoring of food vendors around the school premises. These efforts reflect an institutional commitment to fostering a school culture that supports sustainable behavior.

However, in-depth interviews revealed that many of these practices lack structured evaluation mechanisms to measure tangible changes in student behavior. In many cases, the activities remain ceremonial and are not integrated into the formal learning curriculum, thus limiting their long-term impact on students' character development as green consumers. This aligns with critiques of the Adiwiyata program, which has been seen as focusing more on administrative compliance than on pedagogical substance (Green School International, 2020)..

Integration into Learning and Curriculum

All participating teachers (100%) reported that they had integrated content related to green activities and environmentally friendly consumption into classroom instruction, either explicitly or implicitly through subject themes. However, only 64.1% of teachers demonstrated a comprehensive understanding of green consumer behavior. This highlights a disconnect between practice and the underlying theoretical knowledge.

Despite the integration of content, several teachers admitted experiencing difficulty in linking theory to practical classroom activities, particularly in the context of green consumer behavior. This underscores the need for further teacher training to support the implementation of more contextualized and project-based learning (Kumar & Singh, 2017). Effective environmental education requires a balanced approach that integrates cognitive, affective, and psychomotor domains, while encouraging critical reflection on students' own consumption habits (Cruz & Bulan, 2017; Trihantoyo & Rahma, 2021).

The Need for Specialized Learning Programs

Based on the needs assessment data, four primary needs were identified:

1. Experiential, real-world learning programs that instill sustainable consumption values;
2. Standardized and practical instruments to evaluate green consumer behavior;
3. Opportunities for students to express and practice environmentally friendly consumption behaviors; and
4. Support for students to understand their role as consumers within the broader ecosystem.

This identification indicates that although awareness has begun to take shape, there remains a need for systematic intervention in the form of an integrated program that combines contextual, collaborative, and project-based learning. In doing so, students are not only cognitively aware of environmental issues but are also trained to make reflective and responsible consumption decisions. These findings align with the principles of transformative education, in which students are not merely recipients of information but active agents of change (Sterling, 2011).

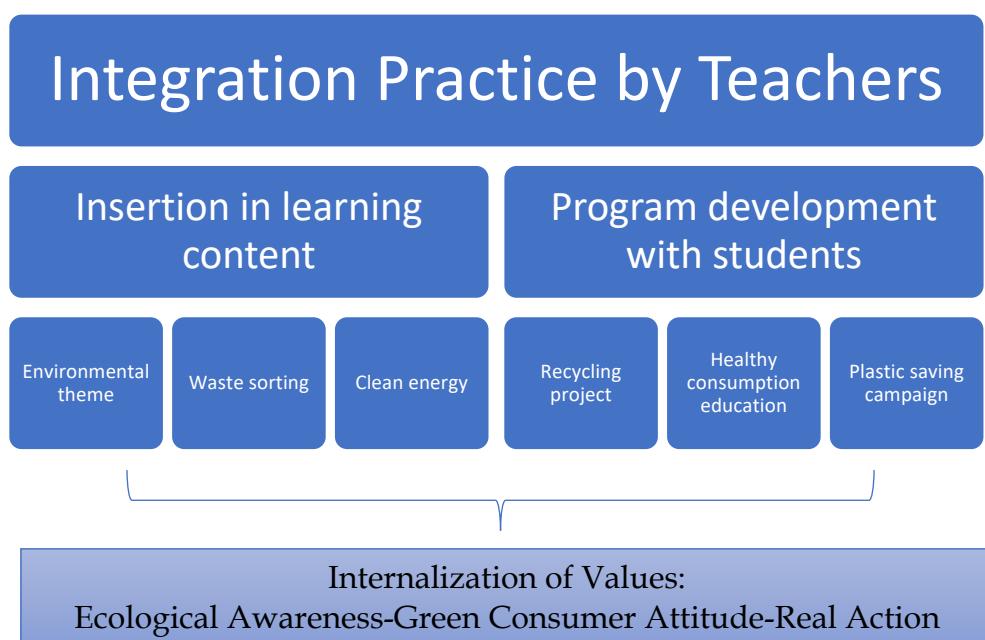


Figure 1. The Concept of Integrating Green Activity and Green Consumer Behavior in Learning in Elementary Schools

The needs analysis, conducted through observations and interviews with principals and upper-grade teachers, revealed a stronger understanding of green activity compared to green consumer behavior. This is not surprising, as green activities have been more commonly practiced in schools in the form of environmental clean-up, waste segregation, and greening programs. Nevertheless, most principals and teachers emphasized the importance of both concepts and agreed that they should be introduced to students from an early

age. Some schools have even developed internal policies to promote healthy and environmentally conscious consumption, such as regulating student snacks and overseeing canteen vendors. Although local content on environmental education (Pendidikan Lingkungan Hidup, or PLH) exists in some curricula, its implementation remains suboptimal. The findings underscore the urgent need for learning programs that provide students with hands-on, real-life experiences, reliable evaluation instruments to measure green behavior, creative spaces for student expression and action, and learning models that help students recognize their potential as agents of change in environmental issues.

CONCLUSION

This study reveals a clear and urgent need for the development of structured educational programs that integrate green activities and actively promote green consumer behavior in primary schools. Although environmental initiatives have been introduced in many schools, their implementation often lacks pedagogical depth and systematic evaluation. The findings demonstrate that while teachers and school principals acknowledge the importance of environmental values, their understanding—particularly regarding green consumer behavior—remains limited. This highlights a gap between awareness and instructional practice.

To strengthen environmental education, it is essential to move beyond symbolic activities and adopt project-based, experience-driven learning models that are directly linked to students' daily lives. Such programs should be aligned with national curriculum goals, especially within the framework of the Pancasila Student Profile, to cultivate ecologically responsible behaviors as part of character education. Furthermore, the development of standardized assessment instruments and continuous teacher training is vital to ensure measurable and sustainable outcomes.

Future research should explore the long-term impact of green activity programs on students' behavioral change and investigate how religious and cultural values—such as those embedded in Islamic teachings—can reinforce sustainable consumption practices. By connecting environmental education with broader educational goals such as critical thinking, responsibility, and civic engagement, schools can play a transformative role in shaping a generation that is not only environmentally aware but also actively committed to sustainability.

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