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Ecobrick as a sustainable lifestyle implementation in shaping students' creativity and environmental care

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ABSTRACT

The low levels of creativity and environmental awareness among elementary school students are the main issues addressed in this study. Implementing a sustainable lifestyle through the Pancasila Student Profile Strengthening Project (P5) is necessary to overcome these challenges. This study aims to analyze the implementation of the Ecobrick project as a sustainable lifestyle practice to enhance students' creativity and environmental awareness, with a focus on developing creative potential. A descriptive qualitative approach was employed, using instruments such as closed questionnaires, interviews, observations, and documentation to examine the implementation of Ecobrick activities in fostering creativity and environmental care among elementary students. Data analysis followed four stages: data collection, data reduction, data presentation, and conclusion drawing. The results indicate that implementing the P5 project with a sustainable lifestyle theme through Ecobrick activities effectively enhances students' creativity. Findings show that Ecobrick activities successfully met all creativity indicators, including curiosity, questioning skills, idea generation, and independent learning, while also increasing environmental awareness. This study contributes empirical evidence that the P5 project implementation through Ecobrick activities can simultaneously enhance creativity and environmental care, reinforcing project-based learning theory and providing practical guidance for teachers and schools to integrate Pancasila values through sustainable activities.

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INTRODUCTION

School environments often receive limited attention regarding cleanliness. This condition is reflected in the presence of litter and the lack of separate bins for organic and inorganic waste, as noted by Herdiansyah et al. (2021) and reinforced by Pilapitiya and Ratnayake (2024). Therefore, it is important to teach students early about sorting and cleaning waste, particularly inorganic materials, before disposal. Hahladakis et al. (2020), Aqil et al. (2023), and Kachef and Chadwick (2023) explain that plastic, widely used across industries, has become a pressing issue, with plastic waste in Indonesia steadily increasing. Saavedra and Opfer (2012) and Mihai et al. (2022) argue that creatively repurposing plastic waste into crafts transforms it into an educational medium while promoting student participation in recycling. Such efforts, they emphasize, not only foster creativity but also nurture environmental responsibility. Abdullah (2023) and Durrans et al. (2022) highlight Ecobrick, a method of packing cut plastic into bottles, as a practical solution that produces useful items such as furniture and construction materials without incineration. Finally, Luhar et al. (2021) and Suhendri (2022) stress that Ecobrick projects align with 21st-century skills, emphasizing creativity, critical thinking, and problem-solving in education.

Studies on the use of Ecobrick as a learning method have been widely conducted by researchers. Santi et al. (2023) examined the impact of integrating Ecobrick into a 3R (reduce, reuse, recycle) program on improving waste management knowledge among elementary school students. Azizah et al. (2023) highlighted the implementation of the Ecobrick project in social sciences learning, focusing on strengthening students' environmental care character. Furthermore, Suhendri (2022) emphasized the use of Ecobrick not only for waste management but also for creating eco-friendly facilities such as literacy parks. Similarly, Purwati et al. (2023) explored how Ecobrick-making activities can foster students' environmental awareness and love for nature. However, these studies have not specifically addressed the direct impact of Ecobrick, particularly within the 3R program, on students' waste management knowledge. In addition, previous research has tended to provide limited explanations regarding the detailed implementation of Ecobrick in learning activities and has given little attention to evaluating the long-term sustainability and effectiveness of Ecobrick practices.

Based on the preliminary review, studies on Ecobrick have mostly focused on aspects of waste management and the formation of students' environmental care character. Most research emphasizes the integration of Ecobrick in 3R programs to enhance knowledge of waste management, as well as its application in learning activities to improve environmental awareness. Other studies highlight Ecobrick as an eco-friendly medium and as a means of fostering attitudes of care and love for the environment through practical activities. However, these studies remain limited in specifically examining how the Ecobrick project is implemented in elementary schools and its contribution to developing students' creative potential. Therefore, this study offers novelty by exploring the role of Ecobrick as an implementation of a sustainable lifestyle that is not only oriented toward waste management but also toward fostering both creativity and environmental responsibility among students.

This study aims to analyze the implementation of the Ecobrick project as a form of sustainable lifestyle practice in shaping students' creativity and environmental awareness in elementary schools. Through the Ecobrick project, this research focuses on two main aspects: how Ecobrick activities are carried out in schools and their contribution to developing students' creative potential. The purpose of this study is not only to provide a deeper understanding of the effectiveness of Ecobrick activities but also to emphasize their important role in fostering environmental awareness among students from an early age. The benefits of this research are expected to strengthen the theory of project-based learning as a sustainable education strategy, while also offering practical guidance for teachers and schools in designing innovative learning programs that integrate Pancasila values with environmental care.

Based on the stated research objectives, a preliminary conclusion can be drawn that the implementation of the Ecobrick project has significant potential as an effective project-based

learning strategy to foster both creativity and environmental awareness among elementary school students. Through this activity, students are not only trained to think creatively by cultivating curiosity, questioning skills, the ability to generate new ideas, and independent learning, but are also accustomed to developing a caring attitude toward the environment from an early age. The Ecobrick project serves as a concrete medium to integrate Pancasila values with sustainable lifestyle practices, making it highly relevant to the current needs of education. Therefore, this research is designed to address two main questions: How is the Ecobrick project implemented in elementary schools? and How does the Ecobrick project contribute to developing students' creative potential while fostering their environmental awareness?

RESEARCH METHOD

This qualitative study employed a descriptive design, as explained by Marshall (2014), to provide an authentic picture of the implementation of Ecobrick as a sustainable lifestyle in shaping students' creativity and environmental awareness. The design was chosen to explore and understand the phenomenon through the real experiences of students involved in the Ecobrick project. This approach enabled the researcher to collect in-depth data on how students responded to and interacted with Ecobrick activities, both in terms of their implementation and their contribution to developing students' creative potential. Data analysis was conducted using theory-based qualitative content analysis, as outlined by Elo and Kyngäs (2008), which systematically facilitated the identification, analysis, and reporting of emerging patterns. Furthermore, the analysis process was guided by the research questions to ensure that the interpretation of the phenomenon remained focused, relevant, and meaningful in relation to the objectives of the study (Sutton & Austin, 2015).

This study employed closed questionnaires and interviews as research instruments. Oben (2021) argued that closed questionnaires are effective for exploring students' perceptions and satisfaction; therefore, this instrument was used in the ecobrick-making activities. The questionnaire was designed with a dichotomous scale that only provided "yes" or "no" answers. In addition, this study also utilized an observation sheet to assess students' creativity. Utibe (2020) emphasized that the use of a four-point Likert scale enables more measurable assessments, with one meaning very invalid, two less valid, three valid, and four very valid. The observation sheet in this study consisted of twelve questions developed based on student creativity indicators, including additional items to measure creativity achievements as an impact of ecobrick production. Through these instruments, the research was directed toward two main findings: (1) the implementation of the Ecobrick project, and (2) the contribution of the Ecobrick project in developing students' creative potential while also fostering their environmental awareness.

This research was conducted at an elementary school in Gresik, with the researchers serving as the primary instrument. Their direct involvement was essential to understanding how Ecobrick activities were implemented as part of the Pancasila Student Profile Strengthening Project. The study began with initial observations to gain insights into classroom conditions and the integration of Ecobrick in daily activities. Subsequently, interviews were conducted with the classroom teacher and several students who actively participated in the observed learning process. These individuals served as key participants, providing valuable perspectives and experiences regarding the project. In addition to observations and interviews, documentation was also collected as supporting evidence to strengthen the findings. This combination of data collection methods enabled a comprehensive exploration of two main findings: (1) the implementation of the Ecobrick project and (2) the contribution of the Ecobrick project to developing students' creative potential while fostering their environmental awareness.

According to Onwuegbuzie et al. (2009) and Kotronoulas et al. (2023), qualitative data analysis involves four stages: collection, reduction, presentation, and conclusion. In this study, data were gathered through interviews, observations, and documentation. The observations focused on how the teacher implemented Ecobrick activities to foster students' creativity and environmental awareness. In the reduction stage, students' works were analyzed to trace the growth of their

creativity, while interviews were reviewed to identify challenges in applying the method. The data were then presented descriptively in narrative form, offering clarity beyond numerical statistics. The findings highlight two key aspects: first, the implementation of the Ecobrick project, which was successfully integrated into P5 to encourage environmental care; and second, the role of Ecobrick in developing students' creative potential, reflected in their innovative use of plastic waste to create functional products. Conclusions were drawn by synthesizing evidence from multiple sources.

RESULTS AND DISCUSSION

Result

The implementation of ecobrick project

Based on the researcher's observations of student activities as well as interviews with teachers and students, the Ecobrick project required several tools and materials, including plastic waste, food packaging waste, a 1.5-liter bottle, small pieces of cloth, sticks for inserting plastic waste into bottles, washing containers, dishwashing soap, glass glue, duct tape, and used cardboard boxes. The implementation of the project involved a series of systematic processes followed by students. First, students were instructed to collect and clean the plastic waste to ensure its suitability for use. Next, the waste was dried and cut into smaller pieces before being inserted into bottles using sticks.

Table 1

Student Activities in the Ecobrick Program

No	Picture	Description
1	 	The students collected plastic or food package waste. The picture above was taken before the cleaning service officer cleaned up the school area. There was a lot of garbage packaging trash scattered. After collecting plastics, the students cut them into two parts. It was aimed to make easier in the process of washing.
2	 	The third process is cleaning the plastics into the water. The students clean them together. They were cleaned by using soap. Next, drying plastic waste by using a small cloth. They used it to make the process of drying more maximal
3	 	The picture above showed that students cut plastics into small pieces. This process required several meetings. It was caused by the number pf plastics they found. The picture above shows that the students put the pieces of plastic into used bottles. They had to press them by using a stick until it was solid
4	 	Teachers and students collaboratively constructed furniture from Ecobricks by systematically arranging 16 Ecobricks into large square chairs, seven Ecobricks into hexagonal smaller chairs, and 20 Ecobricks into circular tables, securing them with glass glue, cardboard, and duct tape for stability. The Ecobrick project exhibition at school motivates students to actively participate, enhancing their creativity and engagement through displaying their environmentally-focused creations.

Note: The data were obtained by the researcher through observations and interviews with teachers and students

The Ecobrick project described here illustrates a commendable educational initiative that fosters environmental awareness and creativity among students. The project teaches them about recycling and sustainability by engaging students in the collection, cleaning, and processing of plastic waste into Ecobricks. It imbues a sense of responsibility towards the environment. However, the project could be further enhanced by incorporating a more comprehensive educational component that includes discussions on the impact of plastic waste on ecosystems, the importance of reducing plastic use and exploring alternative, sustainable materials. Additionally, while the exhibition of the Ecobrick furniture at Gresik Mall is a great way to showcase the students' hard

work and creativity, extending this showcase to include interactive educational activities could help spread awareness to a broader audience. Such activities could involve visitors in making their mini-Ecobricks, thereby extending the educational impact of the project beyond the school and the immediate community.

Ecobrick project on the development of students' creative potential

To evaluate the effectiveness of Ecobrick as a sustainable lifestyle practice in fostering students' creativity, assessments from classroom teachers were analyzed using specific indicators. As shown in Table 2, the evaluation highlights the alignment between students' activities and creativity indicators such as critical thinking, problem-solving, and innovation. Observations also considered the relevance of student actions to sustainability values, particularly reuse and recycling. In addition, a questionnaire was distributed to gather students' perspectives, serving as complementary data to strengthen the research findings. The summarized results of this questionnaire are presented in the following table.

Table 2
Students' Creativity

No	Creativity Indicator	Statement	Average Score
1	Having great curiosity	Students are always curious about the project to be done	4
2	Frequently asking quality questions	The student always asks when the teacher explains about the project to be done	3
3	Giving lots of ideas and suggestions	Students gave the teacher an idea/proposal about the project to be made to look interesting.	3
4	Having the ability to express opinions spontaneously and without embarrassing	Students are not ashamed to express their opinions to teachers.	4
5	Having a sense of beauty	Students try to show interesting creations	3
6	Having an opinion of themselves and not easily influenced by others	Students always stick to their positions and are not easily influenced by their friends.	3
7	Having a high sense of humor	There's only student behavior that can melt the atmosphere while the project is going on	4
8	Having a strong imagination	Students can imagine what the teacher tells them.	3
9	Having the ability to convey thoughts and ideas that are different from others	Students are able to convey their thoughts even though they are different from others	3
10	Having the ability to work by themselves	Students are able to work on projects given by teachers, both individually and in groups.	4
11	Having the pleasure of trying new things	Students are always excited when they get a new project.	4
12	Having the ability to develop an idea	Students are able to develop their ideas so that they become more creative	3

Note: The data was obtained by researchers from the results of teacher observation assessments

Based on the table above and using a Likert scale assessment (1 = very invalid, 2 = less valid, 3 = valid, and 4 = very valid), the findings indicate that the school successfully achieved all student creativity indicators. These results demonstrate the school's effectiveness in fostering creativity through the structured implementation of sustainable lifestyle projects, particularly through Ecobrick activities. This approach effectively stimulated various aspects of students' creativity, including curiosity, questioning skills, independent thinking, idea generation, and openness to exploring new activities. Furthermore, the project encouraged students to apply sustainable living principles in their daily lives. Consequently, Ecobrick activities not only optimally developed students' creative potential but also cultivated their environmental awareness, making it an effective and meaningful learning method.

Discussion

The impact of ecobrick activities on student creativity

The findings of this study indicate that the Ecobrick project significantly contributes to fostering students' creativity. This result aligns with Miao et al. (2023) and Yadav et al. (2024), who argue that high scores on creativity indicators are strong evidence of the effectiveness of practical initiatives in enhancing creative capacities. Moreover, the indicators rated as 'very valid' in this study illustrate a broad range of traits such as curiosity, humor, independence, and willingness to experiment that are emphasized by Prime et al. (2023) as fundamental to nurturing creativity. Similarly, Vaisarova et al. (2024) highlight the importance of generating ideas and asking critical questions, which resonates with the students' demonstrated ability to think divergently and approach problems with innovative solutions.

A critical examination of the findings reveals important concerns regarding the depth and practical application of creativity assessments. Long et al. (2022) emphasize that the effectiveness of such assessments should be scrutinized beyond surface-level indicators, suggesting that high scores alone cannot fully capture students' creative growth. While the present study shows positive results, Park et al. (2023) argue that the broader educational context must be considered, particularly whether creative traits are sustained beyond the project and integrated into other subjects or extracurricular programs. Similarly, Mkude and Mubofu (2022) stress the importance of situating creativity within holistic development, which raises questions about the long-term transferability of these skills. Moreover, not all students may benefit equally; variations may occur depending on interest and affinity toward environmental issues. To address this, Handoyo et al. (2024) and Setiani et al. (2025) advocate complementing quantitative tools with qualitative, narrative-based evaluations to better capture the nuanced ways students express creativity.

The use of Ecobricks as a creative medium in education shows considerable potential; however, its effectiveness depends on integration into a broader curriculum designed to promote sustained creativity and real-world application. Onungwe et al. (2023) argue that environmental projects like Ecobrick are most impactful when embedded in structured pedagogical frameworks that encourage cross-disciplinary learning and innovation. In a similar vein, Milad (2025) highlights that without curricular alignment, such projects risk being reduced to one-off activities with limited influence on students' long-term development. Both scholars also stress the necessity of longitudinal research to evaluate whether students' creative capacities and sustainability awareness endure beyond the project. Comparing these perspectives suggests that Ecobricks should not stand as isolated practices, but rather as integral components of character formation and creative skill development within diverse learning contexts.

The development of student creativity through the Ecobrick program emerges from the dynamic interplay between initial interest, curriculum integration, and the cultivation of enduring creative traits. Hapsari and Wahyuni (2020) as well as Ardiansari et al. (2024) observe that students' early enthusiasm often stimulates active engagement, yet they caution that creativity driven solely by interest may remain superficial and unsustainable. Building on this, Hung and Pan (2025) argue that meaningful and lasting creativity requires embedding Ecobrick activities into the formal curriculum, ensuring continuity and alignment with broader educational goals. Without such curricular integration, creative expression risks fading once the activity concludes. Conversely, Anjum et al. (2021) emphasize that ongoing pedagogical support fosters deeper problem-solving capacities, while Dellyana et al. (2024) highlight that structured learning environments enable students to transfer creative skills beyond the Ecobrick project. Taken together, these perspectives underscore the necessity of balancing enthusiasm with institutional integration to maximize the program's long-term impact.

The Ecobrick program's ability to foster student creativity goes beyond simply capturing their initial interest. While early enthusiasm can encourage participation, lasting creative growth requires consistent integration of Ecobrick activities into the formal educational curriculum. When these activities are embedded within structured learning, students are more likely to develop creativity

that is not only deeper but also sustainable over time. This ongoing support allows creative thinking to extend beyond the scope of the Ecobrick project itself, contributing to the development of practical problem-solving abilities that can be applied in various real-life contexts and everyday challenges students may encounter.

Ecobrick program on students' attitudes towards environmental awareness

One of the central themes in the Pancasila Student Profile Strengthening Project is Sustainable Lifestyles, which, as Rachman et al. (2024) explain, is intended to build students' awareness of the long- and short-term consequences of human activity on the environment. In line with this, Børresen et al. (2022) stress that students must grasp how everyday decisions influence sustainability and ecosystem resilience, underscoring the need for education that connects personal habits to global challenges. Van Poeck et al. (2024) and Schutte et al. (2025) further argue that project-based, experiential learning is particularly effective in cultivating critical, creative, and responsible attitudes toward nature. Practical activities such as recycling, Ecobrick making, or waste reduction campaigns exemplify this approach. Complementing these views, Sakti et al. (2024) and Andajani et al. (2024) contend that embedding sustainability into the school curriculum strengthens Pancasila values, particularly collaboration, responsibility, and character development. Collectively, these perspectives highlight that sustainable lifestyle education prepares students as environmentally conscious citizens.

One important initiative for fostering student character in accordance with Pancasila values is the Pancasila Student Profile Strengthening Project. Susanti et al. (2023) and Prasetiyo et al. (2024) emphasize that this program prioritizes collaboration and creativity as key dimensions of student development. Kozlowski and Ilgen (2006) as well as Meyers et al. (2023) argue that the effectiveness of such initiatives depends largely on teamwork dynamics, where students are encouraged to communicate openly, share ideas, and support one another. This resonates with findings from Omar et al. (2022) and Soraya and Supadi (2022), who observe that collaborative practices help students internalize the value of collective effort while strengthening bonds with peers and community partners. At the same time, creativity emerges as a central outcome. Van de Pol et al. (2010) highlight the role of critical and adaptive thinking, while Marzuki et al. (2023) stress innovation in addressing real social needs. Taken together, these perspectives suggest that combining collaboration with creativity not only prepares students to face future challenges but also aligns with the Pancasila ethos of contributing responsibly to society.

This research is particularly relevant for fostering higher-order thinking skills (HOTS), as demonstrated through students' engagement in creating Ecobricks from plastic waste. Hapsari and Mauludea (2024) argue that such activities directly support Bloom's taxonomy at the C6 "Creating" level, where students design and construct novel products. In this context, creativity is evident when waste materials are transformed into functional and meaningful outcomes. However, Loseby in Elvianasti et al. (2021) reminds us that critical thinking cannot be developed in isolation; it must be accompanied by creativity, complex problem solving, and the ability to communicate ideas effectively. These perspectives suggest that Ecobrick projects provide a platform for the integration of multiple competencies rather than focusing on one skill alone. Supporting this view, Aqil et al. (2023) highlight that Ecobricks serve not only as learning resources but also as practical tools to stimulate creativity and environmental awareness. Together, these insights confirm the program's value in cultivating critical, creative, and problem-solving abilities.

Ecobrick program in shaping students' creativity and environmental awareness

Based on the study's findings, the integration of Ecobrick learning within the Pancasila Student Profile Strengthening Project has been effective in enhancing students' creativity and curiosity. Gagaramusu et al. (2024) and Janapati & Vijayalakshmi (2024) argue that integrated learning models like Ecobrick foster active student participation and cultivate essential creative traits, thereby reinforcing the observed outcomes. Similarly, Hawari and Noor (2020) emphasize

that project-based learning is crucial not only for improving creativity and curiosity but also for embedding moral and character values, positioning Ecobrick as a representative example of this approach. Chen et al. (2024) and Yan et al. (2024) add that Ecobrick projects challenge students to generate innovative solutions to environmental problems through recycling and waste management, aligning creativity with sustainability. Complementing these perspectives, Antico et al. (2017) and Noor et al. (2024) highlight that such initiatives stimulate critical inquiry, encouraging students to ask probing questions and pursue deeper understanding. Collectively, these views suggest that Ecobrick activities support both cognitive growth and character formation, aligning educational practice with the values of Pancasila.

The introductory stage of this study, which emphasized eco literacy, proved effective in raising students' awareness of their surrounding environment. This result is consistent with the findings of Hasan et al. (2023), Nida et al. (2021), Mawarni et al. (2023), and Mukholifah et al. (2023), who collectively argue that eco literacy education is essential for equipping students with the knowledge and skills to address environmental issues, particularly plastic waste management. These scholars contend that eco literacy enables students to translate knowledge into practice, as seen in their ability to construct sustainable Ecobricks. Supporting this, Rahmawati (2019) highlights that literacy about Ecobricks offers practical pathways for achieving environmental sustainability. Kumar et al. (2021) and Anokye et al. (2024) further emphasize that when students recognize the ecological consequences of plastic waste, they are more likely to adopt innovative and responsible behaviors. Taken together, these perspectives suggest that integrating eco literacy with Ecobrick practices empowers students to contribute meaningfully to environmental preservation while promoting sustainable lifestyles.

The visualization of Ecobrick implementation stages provides a useful framework for understanding the progression of environmental learning, from initial introduction to active student participation. Herdiansyah et al. (2021) and Kadarisman et al. (2023) emphasize that structured environmental education is most effective when it gradually guides learners through increasing levels of engagement. Yet, within elementary education, refinement remains necessary to match pedagogical strategies with students' developmental needs. Guerrero and Sjöström (2024) caution that eco-literacy content must be aligned with children's cognitive abilities, as overly abstract or theoretical explanations risk limiting comprehension. To overcome this challenge, eco-literacy should be delivered through practical, hands-on activities and real-world examples that connect with daily experiences, making learning both accessible and engaging. Furthermore, experts recommend fostering interest through interactive methods such as discussions and storytelling, which enhance enjoyment while deepening understanding. Collectively, these perspectives highlight that without age-appropriate and experiential approaches, students may struggle to internalize sustainability values and translate them into responsible behaviors.

Another crucial factor in ensuring the success of Ecobrick activities is structured and consistent teacher guidance, which safeguards both learning effectiveness and student safety. Since Ecobrick construction involves handling plastic waste and assembling diverse materials, supervision is essential not only to prevent risks but also to channel creativity productively. Setiadi et al. (2023) and Rubini et al. (2023) observe, however, that existing visualizations of the Ecobrick process often underrepresent the teacher's role in facilitating each stage, leaving a gap in understanding how instruction shapes outcomes. To address this, experts advocate for detailed instructional frameworks that incorporate lesson planning, pedagogical strategies, and teacher-led demonstrations to clarify expectations for students. Equally important, educational researchers stress the role of feedback and guided problem solving in deepening comprehension and fostering critical thinking. Taken together, these perspectives suggest that with strong teacher involvement and structured support, Ecobrick activities can serve not only as environmental education but also as a platform for developing creativity, problem-solving, and sustainable habits.

CONCLUSION

Implementing the Pancasila Student Profile Strengthening Project under sustainable lifestyles effectively promotes creativity through Ecobrick craft activities in fourth grade classes. Students engage practically by converting plastic waste into valuable products and showcasing them in exhibitions, enhancing their environmental awareness and creativity. The structured stages introduction, contextualization, and action ensure students understand waste impacts and actively solve environmental issues. Evaluation through questionnaires shows achievement across all creativity indicators, confirming the project's effectiveness in fostering student creativity. Activities like Ecobrick crafting successfully stimulate students' curiosity, questioning ability, idea generation, opinion expression, appreciation of beauty, independence, willingness to explore new ideas, and creative thinking.

The implementation of the Pancasila Student Profile Strengthening Project through Ecobrick craft activities offers both theoretical and practical implications. Theoretically, this research reinforces the concept that structured project-based learning significantly enhances students' creativity, curiosity, and environmental awareness. It validates educational theories emphasizing hands on activities and eco literacy integration as crucial factors for holistic student development. Practically, this study encourages educators and schools to incorporate sustainable projects systematically into curricula, using structured phases of introduction, contextualization, and action. Additionally, consistent use of creativity indicators can effectively assess student progress, enabling educators to refine instructional practices continually and enhance environmental education outcomes.

Future research should expand Ecobrick projects into community service programs that engage a broader audience beyond elementary students, including various community groups. This approach can enhance public awareness and collective responsibility for sustainable living, especially when plastic waste is a primary environmental concern. Involving more participants can also strengthen support for the 3R principles reduce, reuse, and recycle while fostering long term environmental stewardship. By integrating Ecobrick activities into broader community initiatives, sustainability efforts can become more impactful, encouraging lasting behavioral changes and a more significant commitment to reducing plastic waste at individual and societal levels.

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