

Reflection Article

Strengthening Environmental Attitudes in First-Grade Students Through Pedagogical Strategies and Teaching Resources

Fortalecimiento de las actitudes ambientales en estudiantes de grado primero mediante estrategias pedagógicas y recursos didácticos

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Abstract

This reflective article addresses the strengthening of environmental attitudes among first-grade students through pedagogical strategies and contextualized teaching resources. It begins by highlighting the importance of environmental education during the early years of schooling as a process that fosters the progressive development of knowledge, values, and responsible behaviors toward the environment. From this perspective, the author reflects on the need to recognize children's prior knowledge and everyday experiences as a starting point for promoting meaningful learning. It also highlights the influence of behavioral modeling in school and family contexts, as well as the importance of developing experiences linked to local environmental issues that allow for students' active participation. Similarly, it analyzes the role of teaching resources as mediators to foster awareness, understanding, and a willingness to take actions that protect the environment. Finally, the study argues that strengthening environmental attitudes requires intentional, continuous, and coherent strategies that integrate knowledge, values, and action. It concludes that environmental education beginning in first grade can help consolidate responsible practices when students participate in meaningful experiences related to their reality and receive ongoing support from the school and their families.

Keywords: Environment; Natural resources; Environmental education; Recycling; Pollution. (Source: ERIC)

Resumen

El presente artículo de reflexión aborda el fortalecimiento de las actitudes ambientales en estudiantes de grado primero mediante estrategias pedagógicas y recursos didácticos contextualizados. Se parte de la importancia de la educación ambiental durante los primeros años de escolaridad como un proceso que favorece la construcción progresiva de conocimientos, valores y comportamientos responsables frente al entorno. Desde esta perspectiva, se reflexiona sobre la necesidad de reconocer los saberes previos y las experiencias cotidianas de los niños como punto de partida para promover aprendizajes significativos. Asimismo, se destaca la influencia del modelamiento de conductas en los contextos escolar y familiar, así como la pertinencia de desarrollar experiencias vinculadas con problemas ambientales cercanos que permitan la participación activa de los estudiantes. De igual manera, se analiza el papel de los recursos didácticos como mediadores para favorecer la sensibilización, la comprensión y la disposición hacia acciones de cuidado ambiental. Finalmente, se plantea que el fortalecimiento de las actitudes ambientales requiere estrategias intencionadas, continuas y coherentes que articulen conocimiento, valoración y acción. Se concluye que la formación ambiental desde grado primero puede contribuir a consolidar prácticas responsables cuando los estudiantes participan en experiencias significativas relacionadas con su realidad y reciben acompañamiento permanente de la escuela y la familia.

Palabras clave: Medio ambiente; Recurso naturales; Educación ambiental; Reciclaje; Contaminación. (Fuente: ERIC)

1. Introduction

Environmental attitudes should begin to be developed during the earliest stages of schooling. In first grade, this is possible because children are willing to learn, accept, and adapt to the world around them according to the demands of contemporary society. However, this does not mean that the topic should be approached solely from an ecological perspective. It is essential to establish a scientific foundation for addressing the major environmental challenges of our time, which will be beneficial in children's future lives. Novo

(2009) argues that environmental education is a process of educating individuals who understand the condition and problems of their environment and actively participate in managing these issues. Therefore, early environmental education should emphasize a combination of knowledge acquisition and socio-environmental awareness.

It is important to provide children with the knowledge they need and to teach them the necessary skills before they reach critical stages in the development of their personalities. Since first-grade students are constantly receiving new information, it is

crucial to ensure that they can effectively apply their thinking skills. Nevertheless, Ausubel (1963) states that unless new material can be related to relevant ideas already existing in students' minds, learning is unlikely to be either cumulative or meaningful. This implies that, in order to achieve better outcomes in early learning, first-grade teachers should focus primarily on topics that are understandable and meaningful to children. Such topics include water, waste management, animals, the school environment, and other related issues.

Díaz-Barriga Arceo and Hernández Rojas (2010) suggest using pedagogical strategies and instructional resources to help students achieve meaningful learning. Furthermore, this type of learning should take contextual characteristics into account and enable children to discover knowledge for themselves. The primary purpose of such strategies and resources is to organize learning activities based on observation and reflection. For this reason, the present study addresses the strengthening of environmental attitudes among first-grade students through pedagogical strategies and educational resources.

2. Method

To improve environmental attitudes among first-grade students, it is essential to consider the perceptions they have already formed. Teachers should use strategies that enable them to understand the misconceptions their students may have. As a result, educators will be better equipped to identify the most appropriate approaches for aligning these perceptions with established knowledge and making them understandable to children. In other words, time should be devoted to helping

students successfully transform their existing preliminary knowledge into new learning (Velandia-Cequera, 2023).

One of the strategies suggested by specialists in this area is participation. To demonstrate how this strategy can be applied in pedagogical practice, Velandia-Cequera (2023) describes an experience related to the conservation of a local wetland, using participation as the central approach. This strategy was inspired by the idea of drawing upon the prior knowledge of both children and their mothers. After observing how this approach generated interest and active involvement among children in environmental improvement processes, it is considered appropriate to recommend its incorporation into educational practices. In this way, environmental education can become much more understandable and meaningful for students.

When discussing the development of environmental attitudes, it is also important to highlight the need to provide children with examples of the behaviors they are expected to demonstrate. Social theorist Bandura (1977) argues that life events can be viewed as specific dimensions of ongoing complex behavior; consequently, many forms of behavior can be learned through observation and self-reflection. Numerous examples of this can be found in modern society, where individuals strive to teach children to be informed and responsible regarding environmental issues (Bandura, 1977). In everyday life, there are many people who can serve as role models. For this reason, it is considered appropriate to involve community members who are willing to demonstrate environmentally responsible practices and show children how to care for the environment.

When it comes to strengthening environmental attitudes among first-grade students, the importance of providing opportunities for meaningful action should not be overlooked. Ardoin et al. (2020) conducted a study that reviewed a large number of peer-reviewed publications to determine whether environmental education could have a measurable impact on the environment. Specifically, 105 studies were examined, of which 84 reported positive results and only 21 produced mixed findings. Ardoin et al. (2020) concluded that successful interventions emphasized a focus on local issues and the inclusion of concrete actions. This finding suggests that it may be highly beneficial to provide students with opportunities to engage in meaningful actions within their local communities. Rather than simply learning about environmental conservation, children can begin to think about solving common problems and improving their surroundings. In this way, environmental education becomes relevant to both students and the broader community.

One of the most common issues that may significantly influence students' concern for the environment is waste management. Estrada Araoz, Huaypar Loayza, and Mamani Uchasara (2020) investigated the relationship between environmental education and waste management. Their findings revealed a direct connection between these two areas, indicating that positive outcomes can be achieved when they are addressed together. The authors concluded that there is a highly significant correlation between environmental education and solid waste management among students in educational institutions.

This finding suggests that children's environmental awareness can be further enhanced by encouraging them to apply in

real life what they have learned at school. At the same time, this approach provides an opportunity to assess students' level of commitment to environmental improvement efforts. When seeking to improve environmental attitudes among first-grade students, waste management can serve as an effective starting point.

Teachers might begin by asking students how many different types of waste they produce each day and how those materials should be disposed of. They could then explore why such waste may be harmful to the planet and why changes in behavior are necessary. In this way, both components—academic knowledge and practical application—can be effectively integrated.

Another fundamental aspect that should be considered when promoting environmental attitudes among first-grade students is the use of instructional resources. Yépez Chávez and Viteri Moya (2019) recommend reconsidering the implementation of innovative programs that demonstrate opportunities for making use of organic waste. They also describe several strategies that can be employed to achieve this objective. All of these approaches are designed to motivate children and actively engage them in the learning process.

According to Yépez Chávez and Viteri Moya (2019), the three fundamental pillars of the campaign were awareness-raising, student empowerment, and the use of information and communication technologies to foster a competitive ecological culture.

Based on this perspective, instructional resources should be used to help children discover and understand environmental issues. In other words, these resources should support students not only in

learning about environmental topics but also in applying that knowledge in real-life situations. Videos, images, multimedia resources, drawings, and other educational tools should be available to help children develop their own understanding of the environment, which can later be refined and expanded. The outcomes will largely depend on the instructional resources selected, which should be aligned with the intended educational objectives.

If the goal is to improve children's environmental attitudes through various strategies, it is also necessary to understand the importance of assessing the factors that may indicate the current state of those attitudes. Moreno, Corraliza, and Ruiz (2005) examined the measurement of environmental attitudes toward specific environmental issues. Their objective was to develop a scale for measuring such attitudes, which could also be used to determine whether students' attitudes have changed over time. Furthermore, they noted that measuring attitudes has

important practical implications for environmental education because many environmental attitudes are evaluative in nature.

This suggests that, although students' knowledge levels can be assessed, evaluation should not stop there. It is equally important to determine the extent to which students are willing to contribute to improving aspects of their environment. One way to achieve this is by observing their behavior while participating in various activities and projects. Such observations can help determine whether the desired objectives are being achieved or whether additional time and support are required. Ultimately, the outcomes depend on the strategies implemented and the level of commitment demonstrated by students during the learning activities.

Considering the above, Figure 1 consolidates and synthesizes the information discussed previously.



Figure 1. Strengthening of Environmental Attitudes. (Source: Authors' Own Work)

3. Conclusions and Practical Application

The importance of understanding students' prior attitudes and providing positive role models in their daily lives throughout the educational process is clearly evident. It is essential to establish meaningful connections with the environment and to provide students with opportunities to engage in a variety of meaningful actions. Furthermore, instructional resources should be used to give children direct opportunities to observe the environment and recognize the impact of both their words and actions. All of these factors help students understand that environmental education is not merely about learning specific behaviors.

At the same time, educators' efforts should be directed toward encouraging students to transform their attitudes toward both

themselves and the environment through the effective use of pedagogical strategies and instructional resources.

References

Ardoín, N. M., Bowers, A. W., & Gaillard, E. (2020). Environmental education outcomes for conservation: A systematic review. *Biological Conservation*, 241, 108224. <https://doi.org/10.1016/j.biocon.2019.108224>

Ardoín, N. M., & Bowers, A. W. (2020). Early childhood environmental education: A systematic review of the research literature. *Educational Research Review*, 31, 100353. <https://doi.org/10.1016/j.edurev.2020.100353>

Ausubel, D. P. (1963). *The psychology of meaningful verbal learning: An introduction to school learning*. Grune & Stratton.

Bandura, A. (1977). *Social learning theory*. Prentice Hall.

Díaz Barriga Arceo, F., & Hernández Rojas, G. (2010). *Estrategias docentes para un aprendizaje significativo: Una interpretación constructivista* (3.^a ed.). McGraw-Hill.

Estrada Araoz, E. G., Huaypar Loayza, K. H., & Mamani Uchasara, H. J. (2020). La educación ambiental y el manejo de residuos sólidos en una institución educativa de Madre de Dios, Perú. *Ciencia Amazónica (Iquitos)*, 8(2), 239–252. <https://doi.org/10.22386/ca.v8i2.300>

Kosta, A. D., Keramitsoglou, K. M., & Tsagarakis, K. P. (2022). Exploring the effect of environmental programs on primary school pupils' knowledge and connectedness toward nature. *SAGE Open*, 12(4). <https://doi.org/10.1177/21582440221140288>

Liu, J., & Green, R. J. (2024). Children's pro-environmental behaviour: A systematic review of the literature. *Resources, Conservation and Recycling*, 205, 107524. <https://doi.org/10.1016/j.resconrec.2024.107524>

Martín, J., Velasco, L., & Tójar, J.-C. (2021). Evaluación de un programa de educación ambiental utilizando un enfoque intersectorial para promover el uso sostenible de los desagües domésticos. *Sustainability*, 13(21), 12041. <https://doi.org/10.3390/su132112041>

Moreno, M., Corraliza, J. A., & Ruiz, J. P. (2005). Escala de actitudes ambientales hacia problemas específicos. *Psicothema*, 17(3), 502–508.

Novo, M. (2009). La educación ambiental, una genuina educación para el desarrollo sostenible. *Revista de Educación*, número extraordinario, 195–217.

Świątkowski, W., Surret, F. L., Henry, J., Buchs, C., Visintin, E. P., & Butera, F. (2024). Interventions promoting pro-environmental behaviors in children: A meta-analysis and a research agenda. *Journal of Environmental Psychology*, 96, 102295.

<https://doi.org/10.1016/j.jenvp.2024.102295>

van de Wetering, J., Leijten, P., Spitzer, J., & Thomaes, S. (2022). Does environmental education benefit environmental outcomes in children and adolescents? A meta-analysis. *Journal of Environmental Psychology*, 81, 101782. <https://doi.org/10.1016/j.jenvp.2022.101782>

Velandia Cequera, M. (2023). Diseño de una estrategia didáctica en educación ambiental desde la caracterización de las ideas previas. *Revista UNIMAR*, 41(2), 117–144.

<https://doi.org/10.31948/Rev.unimar/unimar41-2-art7>

Yépez Chávez, A., & Viteri Moya, F. (2019). Enfoques innovadores de educación ambiental con el aprovechamiento de residuos orgánicos urbanos. *Revista Cátedra*, 2(2), 111–132. <https://doi.org/10.29166/catedra.v2i2.1639>

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