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Integrating Green Public Relations and Zero Waste Education as a Digital Learning-Oriented Hybrid Model for Environmental Behavior Change

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ABSTRACT

The future of learning in the digital age is increasingly characterized by informal, community-based, and media-mediated educational processes that extend beyond formal classroom settings. In the context of environmental sustainability, digital communication and public campaigns play a critical role in shaping learning experiences and influencing environmental behavior. This paper proposes a digital learning-oriented hybrid model that integrates Green Public Relations (GPR) and zero waste education as a strategic approach to promote environmental behavior change. Green Public Relations, particularly when conducted through digital media and public figures, functions as an informal learning mechanism that disseminates environmental values, norms, and narratives to wider audiences. Meanwhile, zero waste education emphasizes participatory and experiential learning processes that support knowledge acquisition, attitude formation, and the internalization of sustainable practices within communities. This study conceptually bridges these two approaches, arguing that their integration can enhance the effectiveness of sustainability-oriented learning interventions. This research adopts a research-based orientation using an experimental design to examine the role of the proposed hybrid model in shaping environmental learning outcomes. Data are collected through structured instruments measuring environmental knowledge, attitudes, and behavior, and are analyzed using quantitative techniques to identify patterns of change associated with the intervention. The findings are expected to demonstrate that the integration of GPR and zero waste education provides a complementary learning pathway, where digitally mediated communication strengthens motivation and engagement, while participatory education facilitates deeper understanding and sustained behavioral practice. This study contributes to the discourse on the future of learning by positioning strategic communication and public campaigns as part of a broader digital learning ecosystem. Practically, the proposed model offers insights for educators, communication practitioners, and policymakers in designing integrated sustainability education strategies that align with the dynamics of learning in the digital age.

Keywords: Community-Based Learning, Digital Learning, Environmental Behavior Change, Green Public Relations, Zero Waste Education.



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INTRODUCTION

Environmental sustainability has become one of the most pressing global challenges in the contemporary era, particularly in relation to waste management and community environmental behavior. Despite the increasing availability of information and environmental campaigns, unsustainable waste practices continue to persist at the community level, indicating that access to information alone is insufficient to foster meaningful and lasting behavioral change (Agustyawati & Kuswati, 2025; Wang et al., 2024). Consequently, there is a growing need to re-examine how learning processes related to environmental sustainability are designed, delivered, and internalized, especially within the context of the digital age.

The future of learning in the digital era is characterized by a shift from formal, classroom-based instruction toward more flexible, informal, and media-mediated learning environments. Learning increasingly occurs through digital platforms, social media, public campaigns, and community interactions, where individuals are exposed to values, norms, and behavioral cues beyond institutional education settings (McQuail & Deuze, 2020; Wahyuni, 2025). In this context, environmental learning is no longer confined to schools or training programs but is embedded in everyday communication processes that shape public awareness and behavior.

One approach that has gained increasing attention in sustainability communication is Green Public Relations (GPR). Green Public Relations emphasizes the strategic use of communication to promote environmental values, build public trust, and encourage pro-environmental behavior (Godemann, 2021). Through digital media and public figures, GPR functions not only as a persuasive communication tool but also as a form of informal learning that influences how individuals perceive environmental issues and their own roles in addressing them (Briandana & Saleh, 2022; McCracken, 1989). Public figures, in particular, serve as symbolic role models whose messages can legitimize environmental practices and shape social norms within digital learning ecosystems (Katz & Lazarsfeld, 1955; Lu, 2024).

At the same time, zero waste education represents a participatory and experiential approach to environmental learning that focuses on practical knowledge, value internalization, and



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behavioral adoption. Zero waste education often relies on community-based learning processes, such as discussion, hands-on practice, and collective reflection, which enable learners to connect abstract environmental concepts with everyday actions (Subri et al., 2025; Tsani, 2024). As a form of adult and community education, zero waste education emphasizes active participation and contextual relevance, making it especially suitable for promoting sustainable practices at the grassroots level (Soraya & Muarifuiddin, 2025).

Although both Green Public Relations and zero waste education have been widely discussed in sustainability and environmental education literature, existing studies tend to examine these approaches separately. Communication-based environmental campaigns are often criticized for being symbolic or short-lived, while educational interventions may struggle to achieve broad public reach and sustained engagement (Lyon & Montgomery, 2015; Nmere et al., 2020). This separation highlights a critical research gap: the lack of integrated models that combine the strengths of strategic communication and participatory education within a unified learning framework.

Responding to this gap, this study proposes a digital learning-oriented hybrid model that integrates Green Public Relations and zero waste education as a strategic approach to environmental behavior change. The proposed model positions Green Public Relations as an external learning stimulus that enhances motivation, awareness, and engagement through digitally mediated communication, while zero waste education operates as an internal learning mechanism that facilitates deeper understanding, attitude formation, and sustained behavioral practice (Ajzen, 1991; Koutroubas & Galanakis, 2022). By combining top-down communication strategies with bottom-up educational processes, the model reflects the dynamics of learning in the digital age, where formal and informal learning environments intersect.

The novelty of this study lies in its integrative perspective, which conceptualizes strategic communication and environmental education as interconnected components of a broader digital learning ecosystem. Rather than treating campaigns and education as isolated interventions, this research frames their synergy as a hybrid learning model capable of addressing both cognitive and behavioral dimensions of sustainability (Friedlander & Leimbach, 2025; Godemann, 2021). This



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approach contributes to discussions on the future of learning by extending digital education beyond technology-centered instruction to include communication-driven and community-based learning processes.

The objective of this study is to formulate and examine a hybrid intervention model that integrates Green Public Relations and zero waste education within a digital learning context to support environmental behavior change. By adopting a research-based orientation, this paper aims to provide conceptual and methodological insights that can inform the design of integrated sustainability education strategies for communities (Pakaya et al., 2023). The proposed model is expected to offer practical implications for educators, communication practitioners, and policymakers seeking to promote sustainable behavior through learning approaches that align with the evolving landscape of education in the digital age.

RESEARCH METHODS

This study adopts a research-based approach with an experimental orientation to examine the proposed hybrid model integrating Green Public Relations and zero waste education within a digital learning context. The methodological design is structured to explore how the integration of strategic communication and participatory education contributes to environmental learning outcomes, particularly in relation to knowledge, attitudes, and behavior (Pakaya et al., 2023).

RESULTS AND DISCUSSION

Results

The results of this study are presented in the form of expected findings and observed learning tendencies derived from the implementation of the hybrid intervention model integrating Green Public Relations and zero waste education. Rather than emphasizing detailed statistical outcomes, this section focuses on identifying general patterns related to environmental learning outcomes, including knowledge, attitudes, and behavior (Ajzen, 1991).

The findings suggest that participants exposed to the hybrid intervention demonstrate increased engagement with environmental issues, particularly those related to waste reduction and sustainable practices. Exposure to Green Public Relations messages delivered through digital



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media appears to function as an initial learning stimulus, enhancing participants' awareness and motivation to engage with zero waste concepts (Husain et al., 2023; Tarsono, 2010). This digitally mediated communication contributes to the formation of shared environmental narratives and social norms, which support learning beyond formal instructional settings (Katz & Lazarsfeld, 1955).

In relation to environmental knowledge, the intervention indicates a tendency toward improved understanding of zero waste principles and sustainable waste management practices. Participants show greater familiarity with key concepts and practical strategies associated with waste reduction, consistent with findings from previous zero waste and sustainability education studies (Baba-Nalikant et al., 2023; Wang et al., 2024). This improvement is closely associated with the participatory zero waste education component, which provides contextualized learning experiences that support knowledge acquisition through discussion and practice (Subri et al., 2025).

Attitudinal changes are also observed as part of the learning process. The findings suggest a more positive orientation toward environmental responsibility and a stronger sense of personal relevance regarding sustainability issues. The integration of public figure-led communication with participatory education appears to strengthen affective engagement, encouraging participants to view zero waste practices as socially valued and achievable (Lu, 2024; McCracken, 1989).

Regarding environmental behavior, the results indicate emerging tendencies toward the adoption of zero waste-related practices in daily activities. Although behavioral change is understood as a gradual process, the hybrid intervention shows potential in fostering initial behavioral shifts by combining motivational communication with hands-on educational experiences (Ajzen, 1991; Nmere et al., 2020).

Discussion

The findings of this study can be understood through the lens of learning in the digital age, where education increasingly occurs through informal, media-mediated, and community-based



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processes (McQuail & Deuze, 2020; Wahyuni, 2025). The observed tendencies support the argument that Green Public Relations functions not merely as a communication strategy, but also as a form of informal digital learning that shapes environmental awareness and social norms.

At the same time, zero waste education contributes to deeper learning by facilitating participatory and experiential processes. Consistent with theories of adult learning and environmental education, participatory activities enable learners to internalize sustainability values and translate abstract concepts into concrete practices.

The integration of these two approaches reflects a hybrid learning model that aligns with the characteristics of education in the digital age. Green Public Relations provides a top-down learning stimulus by framing environmental issues and legitimizing sustainable practices, while zero waste education offers a bottom-up learning mechanism through community participation and reflection. This synergy addresses limitations commonly associated with single-model interventions, such as the short-lived impact of campaigns or the limited reach of localized educational programs.

From a theoretical perspective, this study contributes to the literature by positioning strategic communication as an integral component of digital learning ecosystems. It expands the conceptual boundaries of digital education by demonstrating how communication-driven interventions and community-based education can jointly influence environmental learning outcomes. Practically, the findings offer insights for educators, communication practitioners, and policymakers seeking to design integrated sustainability initiatives that combine digital communication strategies with participatory educational approaches.

Overall, the results and discussion underscore the potential of a hybrid model integrating Green Public Relations and zero waste education to support environmental behavior change. While further empirical analysis is required to examine the effectiveness of the model in greater depth,



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the present findings provide a conceptual and methodological foundation for future research and practice in sustainability education within the digital age.

CONCLUSION

This study proposes a digital learning-oriented hybrid model that integrates Green Public Relations and zero waste education as a strategic approach to supporting environmental behavior change. By positioning strategic communication and participatory education within a unified learning framework, the study responds to the growing need for sustainability-oriented learning models that align with the characteristics of education in the digital age. The proposed model highlights the complementary roles of its two core components. Green Public Relations functions as an informal digital learning mechanism that enhances environmental awareness, motivation, and social legitimacy through media-mediated communication and public narratives. In parallel, zero waste education provides participatory and experiential learning processes that facilitate knowledge acquisition, attitude formation, and the internalization of sustainable practices at the community level. The integration of these components reflects a synergy between top-down communication strategies and bottom-up educational processes.

From a theoretical perspective, this study contributes to the discourse on the future of learning by extending the concept of digital education beyond technology-centered instruction. It demonstrates how strategic communication and community-based education can be understood as interconnected elements within a broader digital learning ecosystem for sustainability. The hybrid model offers a conceptual foundation for rethinking environmental education as a dynamic process shaped by communication, participation, and social interaction.

Practically, the proposed model provides insights for educators, communication practitioners, and policymakers in designing integrated sustainability initiatives. By combining digitally mediated public campaigns with participatory educational interventions, stakeholders can create learning environments that are more engaging, contextually relevant, and conducive to sustained environmental behavior change.



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While this paper emphasizes the conceptual and methodological aspects of the hybrid model, further research is required to examine its effectiveness through comprehensive empirical analysis. Future studies may explore the application of the model across diverse community contexts and investigate its long-term impact on environmental knowledge, attitudes, and behavior. Overall, this study offers a strategic and learning-oriented perspective on integrating Green Public Relations and zero waste education within the evolving landscape of education in the digital age.

REFERENCES

- Agustyawati, L., & Kuswati, R. (2025). Paparan Konten Berkelanjutan dan Pengaruhnya terhadap Perilaku Pro-Lingkungan. *Paradoks: Jurnal Ilmu Ekonomi*, 8(2), 984–994.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211.
- Baba-Nalikant, M., Abdullah, N. A., Husin, M. H., Syed-Mohamad, S. M., Mohamad Saleh, M. S., & Rahim, A. A. (2023). The relationship between knowledge, attitudes, values, and technology in promoting zero-waste pro-environmental behaviour in a zero-waste campus framework. *Recycling*, 8(2), 40.
- Briandana, R., & Saleh, M. S. M. (2022). Implementing environmental communication strategy towards climate change through social media in Indonesia. *Online Journal of Communication and Media Technologies*, 12(4), e202234.
- Friedlander, J., & Leimbach, T. (2025). Raising the agenda of environmental issues within a hybrid media landscape: A communication framework for public engagement and impact. *Australian Journalism Review*, 47(1), 55–76.
- Godemann, J. (2021). Communicating sustainability. Some thoughts and recommendations for enhancing sustainability communication. In *The sustainability communication reader: A*



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DOI: <https://doi.org/10.53893/asic.v2i1.497>

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reflective Compendium (pp. 15–29). Springer.

- Husain, M. N., Harahap, E. F., Bachtiar, Y. C., Diawati, P., & Santos, E. R. N. (2023). The sustainability development dilemma in green public relations: part of CSR failure? *Jurnal Studi Komunikasi*, 7(3), 759–778.
- Katz, E., & Lazarsfeld, P. F. (1955). *Personal Influence: The Part Played by People in the Flow of Mass Communications*. Free Press, Glencoe, Illinois.
- Koutroubas, V., & Galanakis, M. (2022). Bandura's social learning theory and its importance in the organizational psychology context. *Psychology*, 12(6), 315–322.
- Latuconsina, H. (2019). *Ekologi perairan tropis: prinsip dasar pengelolaan sumber daya hayati perairan*. UGM PRESS.
- Lu, D. (2024). Performing zero waste: lifestyle movement, consumer culture, and promotion strategies of social media influencers. *Environmental Sociology*, 10(1), 12–29.
- Lyon, T. P., & Montgomery, A. W. (2015). The Means and End of Greenwash. *Organization & Environment*, 28(2), 223–249. <https://doi.org/10.1177/1086026615575332>
- McCracken, G. (1989). Who is the celebrity endorser? Cultural foundations of the endorsement process. *Journal of Consumer Research*, 16(3), 310–321.
- McQuail, D., & Deuze, M. (2020). *McQuail's media and mass communication theory*.
- Nmere, O. N., Abugu, J. O., Alio, F. C., & Anetoh, J. C. (2020). Influence of public relations' media public enlightenment campaign and community participation strategies on waste management. *Problems and Perspectives in Management*, 18(1), 82.
- Pakaya, W. C., Sutadji, E., Dina, L. N. A. B., Rahma, F. I., Mashfufah, A., & Ayu, I. R. (2023).



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Proceedings of Academic Seminar and International Conference (ASIC)

The Future of Learning: Education in the Digital Age

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Metode Penelitian Pendidikan. Nawa Litera Publishing.

- Soraya, M. D., & Muarifuddin, M. (2025). Implementasi Prinsip Andragogi pada Program Pelatihan Menjahit di Lembaga Kursus dan Pelatihan (LKP) Putra Mandiri. *Jurnal Pendidikan Dan Pembelajaran Indonesia (JPPI)*, 5(3), 1442–1456.
- Subri, U. S., Ghani, N. M., Rus, R. C., & Affandi, H. M. (2025). Waste no more: Empowering communities through education and participation in sustainable waste management. *Multidisciplinary Reviews*, 8(7), 2025204.
- Tarsono, T. (2010). Implikasi teori belajar sosial (social learning theory) dari albert bandura dalam bimbingan dan konseling. *Psympathic: Jurnal Ilmiah Psikologi*, 3(1), 29–36.
- Tsani, R. C. (2024). Pelatihan Pola Zero Waste Untuk Mengurangi Limbah Kain. *Abdi Karya: Pengabdian Kepada Masyarakat*, 1(1), 43–47.
- Wahyuni, S. W. (2025). Peran Media Sosial dalam Pembentukan Opini Publik di Era Digital: Sebuah Tinjauan Teoritis. *Baropok: Jurnal Ilmu Sosial Dan Humaniora*, 1(1), 5–8.
- Wang, B., Tang, T., Kaspar, E., & Li, Y. (2024). Explaining citizens' plastic reduction behavior with an extended theory of planned behavior model: An empirical study in Switzerland. *Journal of Environmental Management*, 358, 120869.

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