

Fostering Environmental Culture Through Transformational Leadership and Teachers' OCB

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ABSTRACT

Keywords: Transformational leadership; Organizational Citizenship Behavior (OCB); school culture; environmental education	Environmental issues have become a critical agenda within the global education system, including in Indonesia, which has adopted environmental education through the Adiwiyata Program. However, fostering an environmentally conscious school culture cannot rely solely on programmatic initiatives; it requires visionary and participatory leadership. This research aims to examine how principals' transformational leadership can promote teachers' Organizational Citizenship Behavior (OCB) as a catalyst for building a sustainable school culture. A descriptive qualitative method with a single case study design was employed, focusing on an elementary school located in the suburban area of Bogor Regency. Data were collected through in-depth interviews, participatory observation, documentation, and supplemented by closed-ended questionnaires. The findings reveal that the principal demonstrated key elements of transformational leadership—particularly idealized influence and intellectual stimulation—which significantly encouraged OCB among teachers, including proactive engagement in environmental initiatives and contributions to character development in students (e.g., care, discipline, and responsibility). These results align with existing literature, underscoring the interplay between transformational leadership, OCB, and the development of organizational culture. This research highlights the importance of integrating character-building into environmental education, enhancing ecologically oriented leadership development, promoting synergy between leadership and OCB, and reinforcing institutional policies that support sustainable environmental practices in schools.
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INTRODUCTION

Environmental issues have become an increasingly central concern within the global education landscape, particularly following the adoption of the Sustainable Development Goals (SDGs). Specifically, Goal 4 (Quality Education) and Goal 13 (Climate Action) emphasize the pivotal role of education in fostering environmental awareness and promoting sustainable behavior. In Indonesia, the *Adiwiyata* Program represents a national initiative for environment-based character education, proven to

cultivate an environmentally conscious school culture through the internalization of values such as mutual cooperation, responsibility, and discipline (Prasetyo et al., 2020).

However, the effectiveness of such programs is not solely determined by regulatory frameworks or formal initiatives (Abbott & Snidal, 2021). Rather, it relies heavily on the commitment, voluntary engagement, and leadership of key school actors—particularly principals and teachers. This research investigates how principals' transformational leadership influences teachers' Organizational Citizenship Behavior (OCB) in shaping an environmentally friendly school culture. This inquiry is essential, as existing literature affirms that transformational leadership plays a significant role in cultivating adaptive behaviors and positive organizational culture (Bass & Avolio, 1994; Deng et al., 2023). Meanwhile, teachers' OCB—defined as voluntary behavior beyond formal job responsibilities—serves as a key indicator of collective participation in embedding environmental values within the school community (Organ et al., 2006; Podsakoff et al., 2000).

A review of the literature reveals notable gaps in prior studies. Most existing research tends to treat transformational leadership and environmental education as separate domains, or addresses OCB primarily in the context of general teacher performance. For instance, Heenan et al. (2023) highlight the role of transformational leadership in shaping school culture, yet do not extend their analysis to environmental dimensions. Similarly, Li and Karansha (2022) focus on the connection between leadership and academic achievement, while Sulastri and Amruddin (2023) examine OCB through the lens of religious values and work ethics, without addressing environmental perspectives.

Accordingly, there is a clear need for research that integrates three critical constructs: transformational leadership, teachers' OCB, and the development of a school culture grounded in environmental awareness—particularly in under-researched elementary schools located in suburban contexts. This research seeks to address that gap and provide both theoretical and practical insights into the advancement of sustainability-oriented educational leadership.

This study addresses a critical gap in the literature by integrating three interconnected constructs: transformational leadership, teachers' OCB, and the development of an eco-friendly school culture. While prior research has examined these elements in isolation, few studies explore their synergistic relationship, particularly in the context of elementary schools in suburban areas. By focusing on *SDN Nagrak 06* in Bogor Regency, this research provides a nuanced understanding of how leadership and voluntary teacher behaviors collectively foster environmental sustainability in under-resourced settings. Additionally, the study highlights the role of informal practices and intrinsic motivation in the absence of formal policies, offering fresh insights into grassroots-level cultural transformation.

The primary objectives of this research are to analyze the role of principals' transformational leadership in promoting teachers' Organizational Citizenship Behavior (OCB) within the context of environmental education. Additionally, the study seeks to

examine how teachers' OCB contributes to the development of an eco-friendly school culture, fostering sustainable practices among students and staff. Furthermore, this research aims to identify the challenges and opportunities in sustaining environmental initiatives in suburban elementary schools, providing insights into potential strategies for long-term implementation.

This study offers both theoretical and practical contributions to the field of education. Theoretically, it enriches the discourse on educational leadership by demonstrating the dynamic interplay between transformational leadership, OCB, and organizational culture, particularly in the context of environmental education. Practically, the findings can serve as a valuable resource for policymakers and school administrators in designing targeted leadership training programs and institutional frameworks to enhance environmental sustainability in schools. Moreover, the study provides actionable recommendations for fostering teacher engagement and community involvement in eco-friendly practices, ultimately supporting the creation of greener and more sustainable learning environments.

METHOD

This research employed a descriptive qualitative approach using a single case study design. This design was chosen to explore, in depth, the processes, meanings, and experiences of individuals—specifically school principals and teachers—in cultivating a school culture centered on environmental sustainability. The research adopts a constructivist-interpretivist paradigm, which posits that social reality is constructed through interactions, individual perceptions, and subjective values shaped within specific social contexts.

Research Locus, Population, and Informants

The study was conducted at SDN Nagrak 06, located in Bogor Regency. This school was selected due to its emergent eco-conscious practices despite the absence of formal, structured environmental policies. The primary informants included all educators at the school who actively participated in educational and environmental initiatives. Specifically, the school principal served as the key informant (1 person), while 15 additional respondents—including classroom teachers, subject teachers, and administrative staff—completed closed-ended questionnaires to support perception triangulation.

Participants were selected through purposive sampling, based on their roles, experience, and involvement in school leadership and environmental programs. This technique enabled in-depth and contextual exploration of experiential narratives.

Inclusion criteria for participants:

1. Active as classroom or subject teachers for a minimum of two years at the school.
2. Currently or previously involved in environmental activities—as initiators, implementers, or facilitators.
3. Able to provide reflective insights on the principal's leadership and school work culture.

4. Willing to voluntarily participate in interviews and complete questionnaires.

Data Collection Techniques

Data were collected using methodological triangulation, including the following techniques:

1. In-depth interviews with the principal, teachers, and staff, guided by indicators of transformational leadership and OCB.
2. Participatory observation to examine leadership practices, teacher engagement, and eco-cultural expressions within the school environment.
3. Document analysis of official school records, environmental activity agendas, hygiene SOPs, and visual artifacts such as photos, posters, and infographics.
4. Closed-ended questionnaires with Likert scales, used to supplement qualitative findings and reinforce triangulation.

Data Analysis Techniques

Data were analyzed thematically using the framework proposed by Braun and Clarke (2006) to identify patterns of meaning. The analysis involved:

1. Open coding to assign initial labels and interpret meaning from interview and observation data.
2. Axial coding to categorize codes into thematically relevant clusters.
3. Thematic mapping to construct a visual representation of thematic interconnections and build a comprehensive conceptual structure.

Data Trustworthiness

To ensure the credibility and dependability of findings, the study employed the following validation strategies:

1. Method triangulation—combining interview, observation, and questionnaire data.
2. Source triangulation—comparing views from principals, teachers, staff, and field data.
3. Member checking—verifying interpretations with informants for accuracy.
4. Audit trail—maintaining detailed documentation of the research process to ensure transparency and replicability.

Research Timeline

The research was conducted over three months (February–April 2025), with the following phases:

1. Initial observation and context familiarization (2 weeks).
2. Field data collection—interviews and documentation (4 weeks).
3. Data analysis—coding and thematic categorization (4 weeks).
4. Findings validation and triangulation (2 weeks).

RESULTS AND DISCUSSION

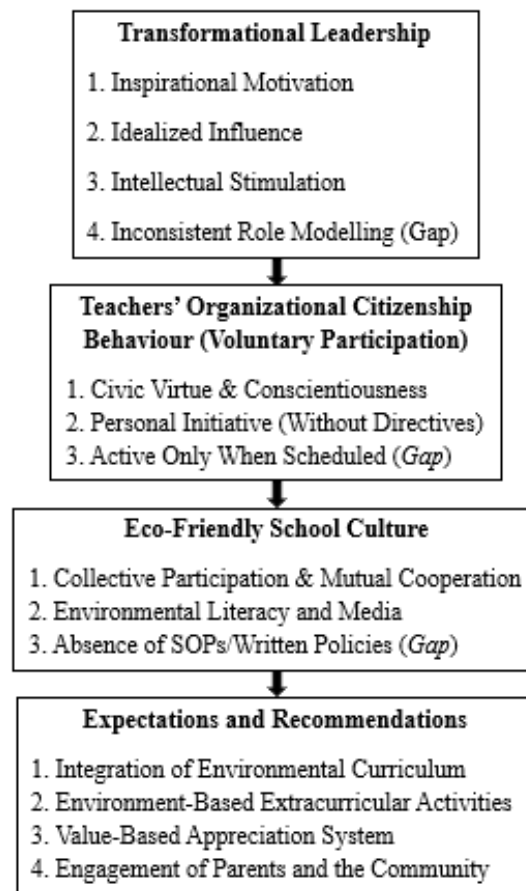


Figure 1. Thematic Flow of the Relationship between Transformational Leadership, Teachers' OCB, and Eco-Friendly School Culture

Source: Adapted from author's field analysis (2025)

Transformational Leadership of School Principals

Transformational leadership is widely acknowledged as an effective approach in fostering positive change within educational settings. This study found that the majority of respondents perceived their principal to exhibit key traits of transformational leadership, particularly inspirational motivation and idealized influence. These dimensions were instrumental in generating collective awareness and enthusiasm toward environmental stewardship.

Respondents highlighted that the principal:

1. Demonstrated exemplary behavior in environmental practices;
2. Delivered motivational narratives to emphasize the importance of environmental preservation;
3. Encouraged critical thinking and innovation among teachers.

However, the dimension of role modeling revealed inconsistencies. While the principal displayed aspects of transformational leadership, some behaviors lacked persistence and coherence. One respondent noted that the principal acted more as an instructional leader rather than an inspiring figure. This inconsistency suggests that the full potential of transformational leadership had not yet been realized.

These findings align with Van Dierendonck et al. (2014), who emphasized that transformational leadership fosters a sense of collective responsibility. Similarly, Heenan et al. (2023) and Li & Karanxha (2022) emphasized the importance of consistency in idealized influence and empowerment for building a participatory school culture. Fauziah & Wahyuni (2022) also highlighted the role of transformational leadership in nurturing collaborative environmental values.

Teachers' Organizational Citizenship Behavior (OCB)

Teachers, as frontline implementers of school policy, demonstrated various manifestations of Organizational Citizenship Behavior (OCB), particularly in environmental initiatives. This aligns with Deng et al. (2023), who demonstrated that transformational leadership is strongly associated with the emergence of OCB, primarily through trust in the leader and intrinsic motivation. Many teachers reported voluntary involvement in eco-friendly practices, such as:

1. Collaboratively cleaning the school with students;
2. Encouraging students to use reusable water bottles;
3. Creating instructional materials from recycled materials.

These behaviors reflect civic virtue and conscientiousness, two core OCB dimensions. However, several respondents noted that their engagement was reactive—triggered by direct instructions rather than intrinsic motivation. This suggests that while elements of OCB are present, they are not yet fully internalized or sustained independently.

These findings resonate with the sense of belonging theory (Organ et al., 2006) and the role of supportive environments in shaping extra-role behaviors (Podsakoff et al., 2000). Sulastri & Amruddin (2023) emphasized that repeated OCB engagement fosters a collaborative and sustainable school identity. Therefore, the emergence of teachers' OCB in this context appears to be influenced not only by leadership but also by interpersonal dynamics and organizational climate.

Eco-Friendly School Culture

Most respondents acknowledged the emergence of an eco-friendly school culture, characterized by:

1. Routine collective cleaning practices (mutual cooperation);
2. Active participation in reforestation and environmental activities;
3. Use of environmentally themed teaching materials.

However, the study also identified structural limitations that may hinder long-term sustainability, including:

- Absence of formal environmental extracurricular activities;
- Lack of standardized operating procedures (SOPs) or written policies on green school practices;
- Informal integration of environmental values into the curriculum.

These findings echo those of Husen et al. (2022), who emphasized that environmental character education requires structured and immersive practices. Informal activities, such as observational trips, were also reported to contribute to ecological awareness, as demonstrated at Labschool Jakarta.

Heenan et al. (2023) and UNESCO (2020) argue that without institutional frameworks, such as thematic curricula, leadership training, and routine symbols of culture, eco-values may not become embedded or sustained. Schein's (2010) theory on organizational culture further supports the idea that formal artifacts and routines are essential for long-term cultural survival.

Respondents expressed the need for:

1. Systematic integration of environmental themes in the curriculum;
2. Dedicated environmental extracurricular activities;
3. Recognition systems for active participants;
4. Multi-stakeholder collaboration involving students, parents, and the wider community.

The transformational leadership exercised by the principal fosters an environment of inspiration and shared values that promotes the emergence of teachers' Organizational Citizenship Behavior (OCB). In turn, this voluntary behavior strengthens the development of a collective and sustainable eco-friendly school culture. The findings suggest that the relationship between transformational leadership, OCB, and organizational culture is not linear, but rather forms a reciprocal and iterative process that reinforces itself over time.

When principals consistently model environmentally responsible behavior and provide space for critical reflection, teachers are more inclined to engage voluntarily in pro-environmental actions. These actions, in turn, contribute to institutionalizing a culture of environmental awareness within the school. This conclusion aligns with previous studies (Li, 2020; Heenan et al., 2023; Nurhadi & Saputra, 2021), which emphasize the strategic role of leadership and OCB in shaping school culture.

However, the sustainability of this cultural transformation remains constrained by the absence of formalized policies and routine reinforcement mechanisms. In suburban schools lacking structured environmental policies, the role of adaptive and visionary leadership becomes even more critical. In such contexts, the success of environmental culture initiatives may hinge primarily on the personal commitment and initiative of school leaders.

CONCLUSION

This research highlights that an eco-friendly school culture is not solely the result of formal programs, but rather emerges from the synergistic interaction between

transformational leadership and teachers' voluntary behaviors, known as Organizational Citizenship Behavior (OCB). Principals who demonstrate transformational leadership—particularly through idealized influence and intellectual stimulation—are shown to effectively foster teachers' active engagement in environmental initiatives. Teachers' OCB, manifested through environmental awareness, self-initiated actions, and cross-functional collaboration, serves as a fundamental pillar in shaping a sustainable school culture. These findings reaffirm that the relationship between leadership and culture is not unidirectional, but instead represents a dynamic, mutually reinforcing process. Accordingly, this research concludes that consistent and contextually grounded transformational leadership is essential in cultivating an environmentally responsible school culture by embedding core values and enhancing collective participation.

The research contributes practically by informing the development of environmentally oriented school policies, and theoretically by enriching the discourse on the interrelationship among transformational leadership, OCB, and organizational culture within educational settings. However, given its single-case study design, the generalizability of findings is limited. Future studies should explore similar models across diverse school contexts to refine the implementation framework and broaden the applicability of these insights.

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