Head Teachers' Perspectives and Implementation of Green Leadership in Pakistani Secondary Schools

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ARTICLE INFO	ABSTRACT
Keywords: *Green leadership, Secondary Schools, Educational leadership, Environmental Education* **Corresponding Author:** **Dr. Muhammad Jamil** Email: m.jamil@gcwus.edu.pk	*This qualitative study was conducted to determine how secondary school head teachers in Punjab Pakistan perceive and carry out green leadership practices. Fifteen head teachers from secondary schools in a district of Punjab were selected using purposive sampling and data was collected through semi-structured interviews. For data analysis, thematic analysis was used with the facilitation of NVivo 15. Four main themes were explored: conceptual understanding of green leadership, implementation strategies and practices, challenges and resource constraints, and motivational and cultural influences. The findings revealed the multiplicity of green leadership, ranging from mere environmentally friendly actions to complete leadership tactics. Implementation strategies encouraged collaborative approaches and engaging stakeholders, while participants discussed curricular and co-curricular activities. Financial constraints, limited infrastructure, and varying support by the stakeholders were identified as major implementation challenges, and religious and cultural values were identified as important motivators of environmental initiatives. Despite these constraints, head teachers developed innovative ways of finding local solutions and quite often, cultural and religious values were mobilized to reinforce environmental initiatives. The findings disseminate knowledge of green leadership implementation in the context of developing countries' educational sectors and yield evidence-based suggestions for Pakistan's policymakers and educational administrators focusing on the importance of structured professional development and organized resource support.*

Introduction

Green leadership is considered an encompassing framework for educational administrators to integrate environmental sustainability into school operations, curriculum, and institutional culture. Environmental sustainability has spread globally, and in developing countries including Pakistan, environmental challenges and needs are leading to the significance of this phenomenon in educational institutions. It is the issue that has jumped up with the growth of concerns about climate change, resource depletion, and environmental degradation. As places of learning and community influence (Yusliza et al., 2020). Educational institutions have an important role to play in creating awareness about the environment and promoting sustainable practices. Schools can be centers of environmental consciousness and promoters of sustainable living. The key role in promoting green initiatives was played by school leaders (Ahmad et al., 2021).

Environmental awareness, sustainable resource management, and integration of eco-friendly practices in the daily operations of a school are all part of environmental leadership in green leadership (Darvishmotevali & Altinay, 2022). The success of green leadership practices in schools largely relies on the understanding, commitment, and circumvention of these challenges. Head teachers implement and sustain these initiatives as institutional leaders.

Pakistan has become a seriously polluted air, deforested, and a country with problems regarding waste management. Systematic environmental education and sustainable practices present an opportunity to address these challenges in the education sector, at the secondary level. However, the implementation of green leadership in Pakistani schools is challenging numerous obstacles like resource constraints, limited awareness, and competing educational priorities.

In the Pakistani context, the role of head teachers in promoting environmental sustainability is of particular significance. They are primary decision-makers in schools since they affect the policies, resource allocation, and approach to environmental initiatives in general in schools (Kilag et al., 2023). Perceptions and practices on the part of green leadership can be crucial to the success of environmental programs and the nurturing of environmentally sensitive future generations.

Through previous research, different parts of environmental education and sustainability in schools worldwide have been studied. Research has documented the execution of environmental programs, the part of leadership in backing up eco-friendliness, and troubles in creating countries about the implementation of environmental programs (Aftab et al., 2022; Liu et al., 2023). However, little research has been done on green leadership practices in Pakistani secondary schools from the point of view of head teachers.

Pakistan's education system, especially at the secondary level, is involved in implementing environmental initiatives for which it has some specific problems like limited resources, lack of trained teachers in direct instruction, and lack of community support. With all this, school head teachers should take these challenges to try to integrate environmental sustainability into their school's operations and culture.

The current study about the green leadership practices in Pakistani secondary schools is important for the identification of the barriers and facilitators for environmental initiatives in schools, and also for the generation of policy and practice-based evidence in this case for educationalists, could contribute to the literature on environmental sustainability in education in general. Earlier studies have been conducted regarding head teachers from different perspectives in the Pakistani context (Hussain et al., 2021; Jamil et al., 2024). However, this research adds to the growing body of literature about environmental sustainability in education. This work addresses a significant gap in

understanding how educational leaders in Pakistan perceive and implement green leadership practices and the challenges they encounter in implementing green leadership.

Most importantly, the study emphasizes secondary schools because these are the ones where students are arguably most sensitive regarding environmental awareness and action. An age when secondary school students can understand environmental issues and get involved in aspects of sustainable practices.

Literature Review

Green leadership is defined by Robertson and Barling (2013) as the set of behaviors that evoke followers into engaging in environmentally friendly behaviors and meeting environmental goals. This takes shape in creating environmentally conscious school cultures and establishing sustainable practices in educational contexts. Chen and Chang (2013) further elaborate that green leadership in schools encompasses three key dimensions: environmental education, sustainable natural resource management, and community participation in environmental endeavors. The multiplicity and quality of green leadership in the educational environment are characterized by these dimensions.

Green leadership in educational institutions has been rising worldwide. A study by Robertson and Barling (2013)) focused on the ways that leaders' environmental behaviours influence followers' environmental practices. It was found that leaders' environmental descriptive norms and harmonious environmental passion were the factors that significantly affected the employees' pro-environmental behaviors.

Environmental sustainability principles are incorporated into traditional educational leadership paradigms to create green leadership. Harris and Jones (2020) illustrate the important role that school leaders play given their commitment and vision is one of the leading determinants of the success of environmental programs in schools. It was found that principals who place a priority on environmental sustainability do a better job of implementing green initiatives. Because of resource constraints and institutional challenges, this leadership role is even more important in developing countries. In the Jabeen et al. (2022) study a significant effect of school environment was found on students' performance with higher regarding female teachers.

A study conducted by Ren et al. (2021) regarding proposing and testing a model grounded in resource-based theory found that CEO ethical leadership moderates the positive relationship between green human resource management and top management team green commitment. Mageswary et al. (2017) conducted an experimental study to integrate experiential-based climate change education in the teaching and learning of Biology classes. It was found that activities related to experiential-based learning enabled students to construct knowledge socially with three basic needs: autonomy, competence, and relatedness.

However, research examining green leadership in Pakistani educational settings is limited but acquiring in strength. *Recent empirical research has paid much attention to green leadership within organizational settings with references to practice and outcomes.* Different studies have been conducted in this respect. In their study, Zahid et al. (2023) investigated the missing links between green Human Resource Management (HRM) and green creativity for green transformational leadership performance enhancement. According to the findings of the study, green *HRM and green creativity significantly mediate the relationship between green transformational leadership. Shah et al. (2023) examined the perceptive effects of green servant leadership on the pro-environmental behavior of Pakistani SME middle-line managers with self-administered online questionnaires with 460 responses. The results of the study show that green servant leadership was impacted by pro-*

environmental behaviour. In the service sector environment, Bhutto et al. (2021) discussed how green inclusive leadership enhanced green creativity in the tourism and hospitality sector. In their work with 302 employees, they found that green inclusive leadership, green psychological climate, and green work engagement had positive relationships. The results highlighted the importance of relational leadership behaviours for stimulating environmental creativity notably in the service sectors.

In the same way, recent work has highlighted how leadership styles impact the environment within which the organizations operate. Work embedded with pro-environmental behaviors revealed the positive relationship between green HRM and green creativity by Ahmad et al. (2022) by surveying subordinate and supervisor employees from 378 subordinates and 141 supervisor employees of organizations located in Pakistan's Gilgit-Baltistan region. The study therefore supported the hypothesis concluding that in line with the trends exhibited, ethical leadership style replies of subgroups supported green HRM and green creativity. Similarly, Hameed et al. (2022) examined the mediated moderating role of green self-identity in green HRM practices and green transformative leadership, and their impact on the green creativity of employees. Mansoor et al. (2022) addressed the moderators' and mediators' role in the combined effect of green HR practices and organizational enablers. In their sample of 272 employees of manufacturing firms in Pakistan, they found significant evidence that green servant leadership partly explains the relationship between green initiatives and organizational performance. The research findings pointed to the fact that there was the need to bring together various approaches to improve green performance and were also prompt on the fact that leadership had always been central in the management of environmental issues.

These studies collectively highlight several key aspects of green leadership like the role of leadership in delivering environmental management schemes, the influence of organizational support in green practices, and the role of green leadership in environmental programs. It has raised the need for integrated strategies and theories for environmental leadership.

This collective research work establishes a commendable systematic relationship between leadership and the enforcement of environmental projects, especially in a developing country like Pakistan, while at the same time underlining the degree of supportive organizational structures as well as the engagement level of the employees toward the accomplishment of environmental programs.

Research Methodology

The present study used a qualitative phenomenological research design to explore the perceptions and experiences of head teachers regarding green leadership in Pakistani secondary schools. In the current study phenomenological approach, was used to understand and make sense of elaborate human experiences (Creswell & Poth, 2018). The application of the study's methodological approach was in line with the study's objective of explaining how head teachers interpret and implement environmental initiatives within their context. In this study purposive sampling was used for selecting fifteen participants — head teachers at public secondary schools of a district in Punjab, Pakistan. During the selection of participants, the emphasis was on identifying individuals with significant experience in school leadership who had been in the position of head teacher for a minimum of five years. This sampling approach enabled an in-depth exploration of experiences yet maintained feasibility for in-depth analysis. The semi-structured interviews were the main research instrument in data collection. The interview guide comprised fifteen questions strategically organized into three main categories: the perceptions and interpretation of green leadership, the

existing practice of implementation of green leadership, and challenges and barriers in implementation. Interview sessions lasted from 40 to 60 minutes. NVivo 15 software was used (Bazeley & Jackson, 2019) for data analysis through a systematic approach. The interviews were transcribed and translated carefully before coding each transcript to identify key concepts and patterns. Thematic data analysis was done using a six-phase approach (Braun & Clarke, 2012). Research design was guided by ethical considerations to a large extent. All participants gave informed consent, and data was anonymized to protect the confidentiality of participants. We informed participants that they had the right to withdraw from the study at any time and had similarly treated and stored all data within ethical research guidelines.

Findings of the Study

Conceptual Understanding of Green Leadership

Analysis showed that understanding regarding heads teachers' green leadership varied among participants. On the one hand, participants saw it as basic environmental actions (i.e., tree planting) but then on the other hand they took a bigger dimensional view of leadership, sustainability, and systemic change. The conceptualization varied, from simple environmental activity to complex team management, vision setting, and organizational change. Some participants linked their understanding with educational outcomes and student development, while others worked with physical environmental improvements. Participants' levels of education, years of experience, and exposure to environmental concepts seem to vary in how they understand this. Participant 3 provided his perspective in the following way:

Green leadership is the promotion of green deeds... Directing students and teachers, as well as concentrating community stakeholders, to do work for environmental sustainability and green work, they can grow trees in their institutions.

Participant 4 narrated his perspective in the following way:

Leadership is the art of getting things done in a directing and inspiring manner, a science of making decisions to create a healthy, pleasant, and attractive teaching-learning environment.

Implementation Strategies and Practices

The implementation of green leadership practices revealed a strong emphasis on collaborative approaches and practical activities. Head teachers employed various strategies ranging from formal programs to informal initiatives. Most participants emphasized the importance of involving multiple stakeholders - teachers, students, and community members - in their environmental programs. The strategies often included both curricular and co-curricular activities, with a focus on creating sustainable habits and long-term behavioural change. Regular monitoring and evaluation mechanisms were established by many participants to ensure the effectiveness of their initiatives. According to participant 6, this aspect was described in the following way:

Two times tree plantation in schools in a calendar year. Making clubs and groups of different age groups to activate students... A positive and friendly culture is helpful in training students in each field. A healthy culture is helpful in training students.

On the other hand, participant 8 perceived it in the following manner:

Love for nature. Respect for nature. Associate ourselves with global issues and requirements... whenever we close our schools due to smog or fog, we are sensitizing our students about global warming and its effects on normal life.

Challenges and Resource Constraints

Participants identified multiple layers of challenges in implementing green initiatives. Financial constraints emerged as the most significant barrier, followed by limited physical resources and infrastructure. The challenges extended beyond material resources to include human factors such as stakeholder resistance, lack of motivation among staff, and limited community support. Most of the head teachers also highlighted the struggle to balance environmental initiatives with other educational priorities and time constraints. The analysis revealed that urban and rural schools faced different types of challenges, with urban schools more concerned about space constraints and rural schools focusing on resource limitations. According to the perspective of participant 14 following narration was made:

Too many constraints poverty of students, and parents, lack of Non-salaried budget (NSB) from the Government just to meet utility bills... A non-cooperative attitude of parents, non-availability of proper funds, etc. I personally manage financial issues because students in Government institutions belong to poor families.

Participant 9 narrated his view in the following words:

Financial resources are the main obstacle. Physical resources are also important. Activities regarding green initiatives need time for students and teachers including other activities... Stakeholders from society are the main obstacle as society resists change/cleaning their environment.

Motivational and Cultural Influences

The study revealed a strong influence of religious, cultural, and personal values in driving green leadership initiatives. Many participants cited religious obligations and cultural responsibility as key motivators for environmental stewardship. The sense of national identity and responsibility towards future generations also emerged as significant motivational factors. Head teachers often connected environmental practices to broader social and moral obligations, suggesting that successful green leadership in Pakistani schools is deeply rooted in cultural and religious values. This connection to cultural and religious values appeared to strengthen the commitment to environmental initiatives despite resource constraints. Participant 10 provided his perspective in the following way:

"Being a school leader it is our responsibility to sensitize our young generation for future alarming situations. First and foremost, the duty being a Muslim leader educate our young generation according to the teachings of Islam.

In the same way, participant 13 narrated his perspective in the following words:

Being a Pakistani, it is our responsibility to keep the environment clean and grow trees and plants... Yes, educational leaders can play a vital role in promoting environmental sustainability.

Discussion

This study finds that green leadership implementation in Pakistani secondary schools is largely consistent with extant research and provides new insights. Therefore, a diverse conceptual understanding of green leadership among head teachers is representative of the dynamic nature of environmental leadership in Pakistani educational setups. The study showed that understanding of green leadership, by head teachers, varied from some basic environmental actions to a more holistic approach. However, this study shows that many Pakistani school leaders focus on short-term environmental actions first, before promoting long-term strategic planning, indicating that they need structured professional development. Participants were able to show implementation strategies which revealed a clear preference for collaborative approaches and stakeholder engagement. Habib et al. (2021) also studied that community participation is critical in the Pakistani system for environmental initiatives. Surprisingly, assumptions about resource constraints, proved to be true, as found in growing awareness of the environment, and hence the requirement of green design, in contrast with its implementation in Pakistani schools. Particularly, the findings highlight the problems of insufficient financial resources (Okour & Shaweesh, 2024) and infrastructure that hinder the implementation of comprehensive environmental programs, a problem well documented within recent Pakistani educational research. One unique finding is the overwhelming power of religious and cultural values in determining the way green leadership practices come into play. Similarly, a study conducted by Nguyen et al. (2017), found the influence of cultural values on green purchase behaviour. Therefore, the challenges identified by participants are with the multiple. However, through this study, we were able to uncover unique and novel local solutions developed by leaders to circumvent these challenges in resource-constrained contexts. We aim to close current literature gaps on green leadership practices in Pakistani secondary schools and point out areas for further investigation. Future research can also observe the long-term influence of religious and cultural motivation on the implementation of sustainable environmental practices in schools and the long-term influence of such practices in their impacts on the views of students on sustainability and conservation beyond the schools in Pakistan context and examine how professional development programs can better support holistic green leadership implementation in the Pakistani context.

Conclusions

This study attempted to understand the green leadership practices in the context of perceptions and their implementation of head teachers at Punjab, Pakistani secondary schools. The outcomes point to the potential as well as the limitations of the implementation of green leadership in the educational context of Pakistan. The findings show that while head teachers acknowledge the significance of environmental leadership, they have quite varying understandings of it. Although some perceive it through basic environmental actions, others combine it with stakeholder engagement and large-scale change. This variant calls for higher standardization in understanding and implementation of green leadership practices in educational institutions. One of the findings was that religion and culture are by far the most influential driving forces to accelerate environmental programs. The awareness and endorsement of the local cultural and religious perceptions assist in enhancing the understanding of green leadership to motivate and inspire the head teachers. This raises culture as a mechanism that may create a commitment to environmental initiatives even in the face of resource shortage. Additionally, this research revealed that sustainability collaboration and stakeholder initiatives were core to the effective advancement of green leadership practice. In school-based environmental action planning there were even more positive sustainable environmental effects when head teachers incorporated the teachers, students, and other members of the community during the overall planning and practical implementation of

the program. However, limited financial constraints and infrastructure constraints remain significant challenges to the performance and extent of implementing the strategy.

Recommendations

- Professional development programs should be developed focusing specifically on green leadership concepts and implementation strategies for head teachers in Pakistani secondary schools.
- There should be established a formal policy framework for environmental initiatives in the schools for cultural values with clear guidelines.
- A collaborative network should be created among secondary schools for sharing successful green leadership practices, resources, and implementation strategies within the Pakistani context.
- Contextual evaluation mechanisms should be designed to assess the effectiveness of green leadership initiatives in schools, incorporating both environmental and educational outcomes.
- A systematic approach should be implemented to resource allocation for environmental initiatives in schools, including dedicated funding and infrastructure support from the education department.

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