



Investigating The Roles of Pakistani Private Secondary School Teachers and Principals as Environmental Sustainable Leaders

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Abstract

The present research aimed to explore the roles of Pakistani private secondary school teachers and principals as environmental sustainability leaders, using a mixed-methods approach that included survey questionnaire administered to 80 teachers and interviewed 10 principals. The data from the questionnaire was analyzed using descriptive analysis, and themes were identified using principal interview data. The main conclusions of this study indicated that it is impossible to overestimate the contribution of school administrators to the cause of environmental sustainability. Students' attitudes and behaviours might be influenced by principals who prioritize sustainability and employ sustainable practices. Effective leadership, suitable curriculum development, and specialized, qualified staff are necessary to teach environmental values in kids. The development of pupils' views and the instillation of proper values, knowledge, and abilities are significantly influenced by school leaders. By providing insights into the roles of Pakistani private secondary school teachers and principals as environmental sustainability leaders, this study has the potential to inform future efforts to promote environmental education and sustainability in schools not just in Pakistan, but around the world.

Key Words: Environmental Sustainability, School Leadership, Environmental Sustainable Leader

1.1 Introduction

The vision of leadership holds a significant position in the academic system with regard to environmental sustainability. In the past, teachers were seen as the holders of all knowledge, using a "one-size-fits-all" approach and relying on memorization and repetition techniques. While they set high standards for education, environmental protection was not given due attention. However, with time, the teaching methodology has evolved, and ecological protection is now recognized as one of the most substantial topics in schools (Hammond et al., 2020). Environmental degradation, resulting from increased resource usage and the production of byproducts, has led to economic disparities and raised concerns among academics and educators



worldwide. This has emphasized the significance of Education for Sustainable Development (ESD) (Batool, 2021).

The future of humanity relies on the need for sustainable development. Issues such as pollution, waste disposal, environmental deterioration, economic output, national security, climate change, ozone layer depletion, and resource depletion have made environmental concerns a global priority. The preservation of ecology has been a matter of human attention since the dawn of civilization, as the consequences of environmental pollution, habitat destruction, and excessive energy consumption have led to the extinction of numerous species. It is feared that a significant portion of the Earth's population may face dire consequences. In Pakistan, adaptability is highly valued as one of the guiding concepts for interactions between the human and non-human worlds (Biasutti, 2017).

Environmental education and awareness play a crucial role in addressing these challenges. Individuals' efforts to preserve and safeguard the environment are interconnected with environmental conservation. Teachers play a vital role in imparting knowledge and skills to students, as well as encouraging them to protect the environment through various programs. The incorporation of environmental concerns and attitudes into educational programs is essential for preserving and protecting the environment. Therefore, the goal of environmental education should be to enhance environmental quality (Saleem, 2020).

In order to integrate environmental awareness into the curriculum, teachers must possess the necessary knowledge and abilities. They should focus on applying environmental awareness to develop a generation with commendable personalities and an appreciation for the natural world (Khadim, 2021). Environmental education's primary objective is to increase people's awareness, knowledge, and ability to adopt a positive attitude towards environmental protection. It equips individuals with the knowledge and skills necessary to address environmental issues and actively participate in activities aimed at safeguarding the environment. Teachers and students in educational institutions often organize campaigns and social service camps for environmental preservation. Environmental education should aim to enhance environmental quality and involve the community in environmental conservation efforts (Tunio, 2021).

Teachers and principals, as Environmental Sustainable Leaders, have the responsibility of guiding students to think and act positively for the long term. Schools may play an important role in promoting sustainability by assisting individuals in understanding the influence of their activities on the environment and encouraging responsible decision making. Special courses on environmental issues are being conducted in schools, and further improvements are being made for the future (Blumstein & Saylan, 2007). Environmental education is a fundamental pillar of the education system. It is essential for students to learn about nature, natural resources, and environmental ethics and values. Teachers and principals have a major part to play in environmental education, as they have an immediate and lasting impact on students' lives. The responsibility of teaching and protecting the environment falls on the shoulders of teachers. Thus, their role in environmental education is critical (Cook, 2014).

Researchers and educators from all over the world have been more interested in the role of education, particularly teacher education, in promoting sustainable living and development. By

enhancing people's understanding, education for sustainable development (ESD) has the potential to enhance people's capacity to act in a more sustainable manner.

1.2 Research Questions

The research questions of the study were as following:

- What is the significance and relevance of environmental sustainability in private school of Pakistan?
- What is the role of Pakistani Private School teachers as Environmental Sustainable Leader?
- What is the role of Pakistani Private School Principals as Environmental Sustainable Leader?

1.3 Objectives

The objectives of the study were to:

- explore the importance and need for environmental sustainability in private school of Pakistan.
- analyze the role of Pakistani private school teachers as environmental sustainable leader.
- determine the role of Pakistani Private School Principals as environmental sustainable leader.

1.4 Research Methodology

In this study, the researcher used a combination of interview and survey data to examine the function of teachers and principals as ethical leaders. In order to learn more about the topic, both the survey findings and the interviews were used. The research adopted a mixed methods approach and hence adhered to a "pragmatic" paradigm. The need to employ efficient research techniques that are appropriate for the particular study being done is emphasized by pragmatic thinking (Tashakkori & Teddlie, 1998). A five-point Likert scale was used in the questionnaire for this study, which was developed by the researcher after evaluating pertinent literature. The questionnaire, which had twenty-two closed-ended items, was given to 80 teachers from six private secondary schools. A questionnaire was used to gather demographic data, and it was also explained to the teachers what it was for. Prior to the main survey, a pilot study was carried out to ensure the questionnaire's reliability, and the questionnaire's validity was determined by experts in the field. Ten heads of private secondary schools were interviewed in semi-structured interviews. The transcribed answers were sent to the interviewees for review prior to data processing to ensure accuracy. To guarantee the dependability and credibility of the data, thorough records of the interviews were preserved. The researchers meticulously reviewed the interviewees' responses, coding them and identifying various themes which were subsequently refined through analysis. Thematic analysis was utilized to analyze the interview data, while descriptive analysis was performed to assess the quantitative data from the questionnaires. Overall, this comprehensive research approach provided valuable insights into the topic of teachers and principals as ethical leaders.

1.5 Results

1.5.1 Frequency Table

A close-ended questionnaire was utilized to collect primary data, and the resulting findings are presented in the form of percentages in the following frequency table. The table provides an overview of the distribution of responses to the questionnaire items.

Table 1 Frequency Distribution

Sr.	Statements	SA %	A %	N %	D %	SD %
1	I feel a sense of responsibility towards environmental issues	26.5	55	3.75	8.75	6.25
2	I feel that education related to environmental sustainability is important.	30	48.75	5	11.25	5
3	I feel that education related to environmental sustainability can provide students with values which can benefit our future life.	21.25	38.75	2.5	21.25	16.250
4	I feel that education related to environmental sustainability can provide students with skills which can benefit our future life.	26.25	46.25	6.25	13.75	7.5
5	I feel that education related to environmental sustainability can provide students with knowledge which can benefit our future life.	43.75	36.5	3.75	8.75	7.5
6	The continual disregard for environmental issues has greatly impacted Pakistanis' poor health and living conditions	28.75	21.25	11.25	32.5	6.25
7	I believe through teaching; teachers can play an important role in solving environmental problems.	26.25	40	6.25	18.75	8.75
8	I feel teachers must apply environmental sustainability in their daily lives to motivate students.	35	40	3.75	11.25	10
9	I think teachers of all fields must be informed about how they can add content about environmental sustainability to their own courses.	46.25	35	6.25	10	2.5
10	I have skills and knowledge to inculcate education about our environment in my teaching.	11.25	36.25	11.25	27.5	13.75
11	I think textbooks activities are enough for education for environmental sustainability.	15	21.25	3.75	48.75	11.25
12	I believe sharing content from news media, roleplaying, debates, open discussions and group projects among students are necessary for promoting environmental sustainability.	27.5	42.5	13.75	10	6.25
13	I think allocating time on environmental sustainability in their lessons improve teachers' professional repute	28.75	36.25	17.5	6.25	11.25

14	I believe environmental sustainability should be taught at all levels of education and in both private and public sectors.	38.75	52.5	2.5	3.75	2.5
15	I believe that insufficient importance is given to environmental sustainability in our education system.	18.75	35	7.5	12.5	26.25
16	I feel environmental sustainability should be taught by setting academic goals for every course.	30	57.5	1.25	6.25	5
17	I believe teachers should encourage students to establish a connection between their personal lives and global environment.	35	41.25	2.5	15	6.25
18	I believe teachers adding environmental sustainability in their lessons is a waste of time.	2.5	16.25	2.5	30	48.75
19	I think environmental issues are difficult for students to understand	15	22.5	13.75	37.5	11.25
20	I believe adding environmental sustainability issues in our current lessons is inappropriate.	10	13.75	6.25	26.25	43.75
21	I believe implementing courses related to environmental sustainability is difficult for teachers.	51.25	21.25	3.75	17.5	6.25
22	I feel that only teachers which are well-trained in environmental sustainability should teach students about it.	38.75	33.75	8.75	13.75	5

Table 1 results show the descriptive analysis of the quantitative data which yielded interesting insights regarding school teachers' perspectives. Among the participants, 65% of teachers felt a strong responsibility to preserve the environment, recognizing its significance in the twenty-first century. A significant portion, 58%, agreed that environmental education can instill valuable skills in students that will benefit their future lives. Similarly, 61% of teachers acknowledged the importance of encouraging students to establish a connection between their personal lives and the global environment. When it comes to promoting environmental sustainability, 56% of the school teachers believed that sharing content from news media, engaging in role-playing, debates, open discussions, and group projects among students are necessary. Regarding the teaching staff, 58% believed that skilled and qualified teachers are required to effectively promote environmental principles among students. Additionally, 52% of teachers agreed that allocating time for environmental sustainability in their lessons can enhance their professional reputation. An overwhelming majority, 73% of school teachers, agreed that environmental sustainability should be promoted in daily lives and taught at all levels of education. Furthermore, 65% of the school teachers agreed that teachers from all fields should be knowledgeable about incorporating content on environmental sustainability into their courses. However, teachers strongly disagreed (48%) that textbook activities alone are sufficient for promoting environmental sustainability. Only a small percentage (13%) of teachers believed that environmental sustainability is difficult for students to understand, while a larger majority (39%) disagreed. Finally, the majority (70%) of teachers agreed that setting academic goals for every course is a valuable approach to teaching environmental sustainability. These findings shed light on teachers' perspectives on environmental education and highlight the importance of their role in promoting sustainability among students.

1.5.2 Qualitative Analysis

The researcher conducted semi-structured interviews with ten principals who were affiliated with private secondary schools. The interviews were recorded and later transcribed by the researcher. From the transcriptions, the researcher analyzed the data and identified common themes that emerged from the interviews.



1.5.2.1 Responsibilities of Leaders Towards Environmental Sustainability:

Leadership plays a vital role in promoting environmental sustainability, as emphasized by the ten leaders representing different institutions. As leaders, they recognize the immense responsibility they bear in guiding their organizations. Central to effective leadership is cultivating a mindset that considers environmental issues, organizational resources, and the workforce when determining the necessary actions and approaches.

One school leader highlighted the importance of involving the entire staff in promoting environmental sustainability, acknowledging that this responsibility can also pose significant challenges. Achieving consensus among staff members and aligning everyone's efforts towards this common goal can be a daunting task.

While school management has introduced various policies and initiatives to ensure environmental sustainability, leaders acknowledge that some staff members may not readily cooperate. In response, leaders stress the need to be well-informed about current environmental issues and possess in-depth knowledge of sustainable development. They believe that leaders should actively address these matters instead of solely relying on the collective efforts of the team.

Additionally, leaders recognize the role of influence in promoting environmental leadership. They assert that leaders must behave and act in a manner that inspires and influences others around them. For instance, adopting eco-friendly practices such as using paper bags can inspire and encourage teachers to follow suit after discussing it in a staff meeting.

Leaders unanimously agree that it is their responsibility to ensure that environmental sustainability is treated seriously within the organization. They advocate for incorporating environmental sustainability into lesson plans across various subjects, presenting the concepts in engaging and meaningful ways. Furthermore, leaders stress the importance of incorporating environmental sustainability into the school's vision, as they are ultimately responsible for driving any changes or actions within the institution. They also highlight the significance of organizing seminars and conferences for teachers and students to gain new perspectives and insights into environmental sustainability.

Recognizing the impact of their institutions' surroundings, leaders also feel responsible for promoting environmental sustainability within the local community. They believe that instilling a sense of environmental responsibility among community members is crucial.

In conclusion, leaders perceive their responsibilities towards environmental sustainability as multi-faceted. From fostering staff involvement to staying informed, influencing others, incorporating sustainability into curriculum and vision, and engaging the local community, leaders play a pivotal role in driving positive change and ensuring a sustainable future.

1.5.2.3 General Perspectives on Environmental Sustainability

In terms of environmental sustainability, one school leader expressed the view that it involves assessing and reflecting on our lifestyles, as well as our care for the planet, homes, and cities. It encompasses our relationship with our surroundings. Other leaders added that as individuals, we have certain responsibilities and expectations towards ourselves. Environmental sustainability requires self-assessment to determine if we are fulfilling our duties as responsible citizens towards Mother Nature. While the Earth provides us with essential resources such as water, food, and shelter, we need to consider what we are giving back in return. Before delving into discussions about environmental sustainability, one leader emphasized the importance of



understanding the concepts of sustainability and sustainable education. All school leaders agreed that environmental sustainability involves preserving natural resources to protect the environment for the well-being and good health of all living organisms on the planet. One leader further emphasized that environmental sustainability means providing a good quality of life to people by controlling pollution and ensuring a peaceful and comfortable environment free from noise and pollutants. Additionally, they stressed the importance of preserving this environment for future generations. Regarding the specific context of Pakistan, three leaders noted that environmental sustainability primarily revolves around pollution control, as there are no other major environmental issues to address. They believed that by implementing preventive measures to control pollution, the nation can become environmentally sustainable.

1.5.2.4 Empowering Environmental Stewards: Environmental Sustainability in the Curriculum and Community

When asked about their efforts to promote environmental sustainability in their schools, four out of ten leaders mentioned incorporating environmental sustainability through a hidden curriculum. Rather than teaching environmental sustainability as a separate subject, they integrate it into their daily practices and activities. For example, one school leader mentioned the practice of turning off lights whenever students leave the classroom to save energy. Other leaders discussed arranging workshops and offering a subject called Global Perspectives to educate students about sustainable education and modern trends. They also encourage the 3Rs (Reduce, Reuse, Recycle) and organize various activities to instill these concepts in students. One school leader mentioned involving students in the decision-making process through the student council, discussing issues related to pollution control and promoting environmental sustainability.

When discussing their motivation to promote environmental sustainability, most leaders cited a desire for a pollution-free country and a sense of responsibility towards the environment. Some leaders mentioned past experiences, such as the impact of COVID-19 and smog on their schools and communities, while others highlighted the health effects of pollution on their students. Many leaders viewed promoting environmental sustainability as a social responsibility and a means to create a better future for younger generations.

1.5.2.5 Securing Funds for Environmental Sustainability: Investing in a Greener Future

Regarding the allocation of funds to promote environmental sustainability, one school leader mentioned the limitation of funds despite being a high-budget and prestigious school in Lahore. They explained that obtaining approval from HR is necessary for any activity, and even then, they only receive fifty percent of the required funds. Another leader added that although their school provides a budget for activities and workshops, the approval process is time-consuming, and authorities ask unnecessary questions, which discourages them from requesting funds. Consequently, they strive to design activities and topics related to environmental sustainability independently.

In contrast, one leader shared that their school encourages teachers to come up with ideas for promoting environmental sustainability without budget limitations. They organize model competitions and debate sessions for students to educate themselves, and no monetary expenses are incurred. However, another leader mentioned that their school does not allocate any funds for environmental education as it is not considered a priority. According to HR, the school already operates on a tight budget, and financial management requires careful planning.

Three school leaders proposed that the government should provide environmental grants to schools to facilitate the transition to solar energy systems and provide resources for promoting environmental sustainability. They suggested that the school education department should offer grants to schools similar to how the Higher Education Commission (HEC) provides funds to universities. Lastly, one school leader suggested implementing a small bus service for teachers' pick-up and drop-off to reduce noise and environmental pollution caused by individual cars. Unfortunately, the school is unwilling to allocate funds for this transportation service.

Sustainable Leadership: A Philosophy or a Style for Creating Lasting Change

One school leader expressed the belief that sustainable leadership is both a philosophy and an effective approach. They emphasized that it is a concept that cannot be scientifically proven but must be instilled in others through actions and words. Another leader mentioned reading about the assumption of human responsibility for environmental sustainability, which resonated with their belief that everyone should take responsibility for the planet, the younger generation, and themselves without needing to be prompted.

Six school leaders agreed that sustainability is an approach wherein leaders are accountable for their actions and serve as role models for promoting environmental sustainability. They emphasized their responsibility for the actions of their teachers and stressed the need to use an effective leadership style to address environmental issues. One leader viewed environmental sustainability as the guiding approach.

Another school leader highlighted that sustainable leadership is a managerial style that entails guiding students and staff members to work in a manner aligned with the school's resources and rules. Additionally, it was mentioned that sustainable leadership can only be effective if the leader possesses a vision and mission that aligns with the school's overall vision and mission. School leaders emphasized the importance of utilizing the school's resources in a way that benefits everyone while preserving those resources for future generations.

Another leader described sustainable leadership as a style that involves designing short-term and long-term sustainability goals, communicating and discussing them with the team, and working towards their achievement. They emphasized considering the school's resources and workforce while setting achievable goals and objectives.

Furthermore, one school leader mentioned the importance of turning off lights when no one is in the classroom. They observed that while students often neglect to conserve electricity by leaving the air conditioning and fans on, there is an increasing awareness and responsibility among students due to rising inflation and heightened environmental awareness.

1.5.2.6 Empowering Future Generations: Inculcating Environmental Sustainability Through Student Tasks

In terms of day-to-day tasks, school leaders mentioned various initiatives to inculcate environmental sustainability among students. These included taking children to the school garden to spend time in fresh air and greenery, providing seeds for students to plant with the assistance of a gardener, and ensuring each class has trash bins to promote cleanliness. One school leader mentioned an activity where students create a trash bin using recycled materials gathered from the school. Additionally, school leaders emphasized teaching students the importance of cleanliness and not only maintaining a clean school but also clean homes. They emphasized the idea of taking ownership of the environment, such as picking up any litter seen

on the road and disposing of it in a bin. School leaders stated that empowering students to feel valued and actively engaged in their well-being encourages their enthusiastic participation.

School leaders noted positive changes in students after incorporating environmental sustainability into their education. While students may not fully adopt a sustainable lifestyle, they are making efforts to do so. School leaders observed that students imitate the behaviors of their teachers and other staff members. For example, when a school leader picked up wrappers from the classroom floor, some students stood up to help. The following day, the classroom was clean, and students sought validation for their efforts.

1.5.2. 7 Role of Communication

All school leaders emphasized the importance of communication in promoting environmental sustainability. Active communication between school leaders and faculty members was seen as instrumental in bringing about positive changes. School leaders provided a platform for faculty members to openly discuss their ideas and concerns. They stressed the need for two-way communication and welcomed input from faculty members.

School leaders mentioned the importance of keeping faculty members informed about situations such as finances and available resources for specific activities. They emphasized building trust and working together for the betterment of students. While open discussions were preferred, some leaders acknowledged the need to convey messages directly to faculty members due to feasibility constraints in implementing certain suggestions.

Some school leaders emphasized involving teachers and the budgeting department in decision-making through proper meetings. They believed that inclusive discussions create a sense of belonging and enhance performance. One school leader delegated authority to a class teacher to plan and coordinate an activity, with the power to issue instructions to other relevant departments for support.

School leaders highlighted the importance of providing faculty members with a list of goals and objectives to achieve. They emphasized monitoring progress, providing feedback after each step, and expressing appreciation upon successful completion. Granting independence and decision-making authority to teachers and teams were viewed as crucial elements for effective teamwork.

1.6 Discussion

Environmental sustainability can aid in reducing the detrimental effects on the air, land, and water. While many people are aware of the seriousness of the environmental problems in the nation, very few are prepared to take action. According to school officials, it is crucial to incorporate the idea of environmental sustainability into the curriculum. According to Suryani et al. (2019), environmental education can influence people's attitudes and perspectives toward nature and play a significant role in educating children about their environment. Education about environmental sustainability can help students become more conscious of their surroundings and provide them the tools they need to improve them. It aids students in comprehending the intricate dynamics of the planet's natural systems, the economic and social interconnectedness of human activity and nature, and the effects of human behaviour on the environment. The study also revealed that school administrators support integrating environmental sustainability into the curriculum. They think that including environmental sustainability into lessons improves instructors' standing in the industry. All educational levels, in the public and private sectors, should include environmental sustainability instruction. Students that receive this kind of education are given the abilities, information, and attitudes necessary for their future success.

Additionally, the location and surroundings of schools significantly influence environmental sustainability awareness, as resources and finances depend on the school's area. These results are consistent with those of Reilly (2008), who noted that environmental education programmes that support sustainable development are dependent on a number of variables, including the setting and location of the institution. By incorporating a curriculum that emphasizes student engagement and connection with natural resources, schools can teach students the skills and values they need for a sustainable future, empowering them to take responsibility for their learning.

Another study found that students should engage in activities such as sharing news media content, role-playing, debates, open discussions, and group projects to promote environmental sustainability. These findings are consistent with the research by Mirza et al. (2020), which demonstrated that media has a significant impact on increasing environmental awareness among students. There isn't much thorough research available to measure the extent to which Pakistani students interact in online platforms connected to environmental wellbeing. Determine Pakistani private school teachers' leadership in environmental sustainability was the goal of the second study question. The results of the questionnaire analysis showed that teachers feel it is their duty to inform pupils about environmental sustainability since they understand its significance for students. These results support research by Parveen (2022) and Linnanvuori (2019), which highlights the critical role that teachers, as change agents through environmental and sustainable development (ESD) competency, play in fostering environmental sustainability.

It is the duty of teachers to integrate sustainable practises into their teaching methods after receiving formal and informal professional development in environmental sustainability. Students are given the essential knowledge, attitudes, and skills by teachers who are aware of environmental sustainability, promoting sustainable literacy. Teachers value collaborative management and community duty over individualism, despite being aware of the significance of environmental sustainability. The results also demonstrate the necessity for government agencies involved in sustainable development to support environmental education and reorientation. To achieve sustainability, environmental ministries should place a high priority on the value of teacher preparation programmes and work with the education sector accordingly. Without government assistance, schools could have trouble affording to promote environmental sustainability.

This is consistent with earlier studies by McKnowen (2002) and Ahmed (2019), which highlighted the significance of cooperation between teachers, school administrators, and government officials in giving special funds to schools. The creation of a successful school curriculum that incorporates ESD can be facilitated by enough government financing. According to studies, many teachers understand the value of teacher preparation in fostering environmental sustainability in the classroom. Teachers should inspire their students to make connections between their own lives and the larger world. The greatest teachers for implementing an environmental sustainability curriculum are those with specific knowledge because it can be difficult. A model in-service programme for teachers in Southeast Asia that stressed "learning for a sustainable environment" was given in McKnweon's 2002 study.

The programme attempts to improve teachers' attitudes and beliefs while giving them the chance for the essential professional growth. With the help of the programme, instructors will be

given the tools and knowledge they need to incorporate environmental sustainability into their curricula. Similar findings were made by Baran and Yurdakul (2020), who discovered that pre-service science teachers in Turkey lacked the skills and knowledge essential to teach about the environment. This finding emphasises the importance of teacher training programmes in this subject area. According to Chen and Jiang's research, primary and secondary school teachers in China recognised the value of environmental education but had trouble putting it into practise owing to limitations like a lack of time, money, and experience (2020).

A study by Othman and Ramly (2020) that was conducted in Malaysia revealed that teacher training programmes that included field trips and experiential learning were effective in boosting teachers' environmental education knowledge and skills. Similar results were found in Chile, according to Alomar and Rojas (2021), who found that teacher training programmes emphasising the development of socio-environmental skills effectively promoted the inclusion of environmental education in the curriculum. According to these findings, teacher preparation programmes can play a significant role in expanding environmental education in schools by putting an emphasis on attitudes and values associated with sustainability in addition to knowledge and abilities.

The third research question aimed to investigate the role of Pakistani private school principals as environmental sustainable leaders. Given the growing urgency of environmental issues such as pollution, resource depletion, and climate change, the interviews with school leaders revealed that leadership plays a crucial role in promoting environmental sustainability. School leaders have numerous responsibilities in managing an organization and understanding what needs to be done, particularly concerning environmental issues, organizational resources, and personnel. Teaching environmental sustainability to the entire faculty was identified as the primary responsibility of a school leader, though it was acknowledged as a challenging task to keep the entire workforce aligned. Leaders have the responsibility to incorporate environmental sustainability into their school's vision as they are ultimately accountable for any changes or actions taking place within the school. According to school administrators, sustainable leadership can only be practiced if the leader's vision and mission align with those of the institution. Sustainable leadership involves utilizing the school's resources in a way that benefits everyone working and studying there while preserving them for future students. Establishing short-term and long-term sustainability goals and sharing them with the team were identified as important components of sustainable leadership.

These findings are consistent with the studies conducted by Sifat (2019), Noorliza (2020), and Slimane (2012), which also highlighted the critical relationship between leadership and long-term growth, as one cannot thrive without the other. Leaders need to adapt to specific demands to fully grasp the goal of sustainable development. They provide their subordinates with a vision to strive for and paint a picture of an ideal future. The vision, shaped by their experiences, influences their methods and approaches. The underlying principles of environmental leadership have a positive impact on environmental efforts. Environmental leadership is crucial for conservation as it promotes green energy consumption, motivates educators and subordinates to follow policies that enhance environmental sustainability, and develops environmental solutions.

Establishing sustainable practices and minimizing the environmental impact of human activities has become more necessary than ever. Several studies have emphasized the significant role of school principals as environmental sustainable leaders in this context. Principals can

influence the actions of staff, students, and other stakeholders, setting high standards for the adoption of sustainable practices. For instance, Manni and Lindgren (2021) found that principals were more inclined to implement sustainable practices in their schools if they possessed a high level of environmental knowledge and awareness.

Additionally, studies have indicated that administrators who support environmental sustainability in their schools have a favourable impact on the attitudes and actions of staff members and students. According to a study by Pebriantika et al., students who are taught by teachers who value environmental preservation are more likely to adopt environmentally friendly behaviours themselves (2020). Similar to students, staff workers are more likely to adopt sustainable practises into their daily life when they work at institutions with strict sustainability rules.

The task for teaching children about environmental sustainability also falls largely on the shoulders of school principals. Through extracurricular pursuits like environmental clubs and field trips, they can incorporate sustainability into the curriculum and spread awareness of it. In a study by Barca et al. (2021), it was discovered that pupils had a better grasp of environmental issues and were more likely to adopt sustainable practises in schools that had environmental education programmes in place. In conclusion, current research indicates the critical role that school principals play in promoting environmental sustainability in their institutions. When principals prioritize sustainability and implement sustainable strategies, it positively influences student and staff attitudes and actions. Furthermore, they have the opportunity to educate students about environmental sustainability and promote it through various activities. Therefore, administrators have a significant influence on how their schools and the wider community perceive and engage with environmental sustainability.

1.7 Conclusion

It is concluded that school leaders have a significant influence on shaping students' beliefs and instilling the correct values, knowledge, and skills in them, allowing them to become good citizens and accountable for their actions. This is only possible if higher authorities, such as the government and school administration, contribute resources. Curriculum should be planned with the age and requirements of the children in mind, as textbook exercises are insufficient to encourage environmental education. Activities and projects should be used to teach students.

One of the main conclusions is that teachers are responsible for environmental sustainability and understood its significance in the twenty-first century. In order to instill environmental ideals in the pupils, however, committed, specialized, and certified trained professionals were needed. Environmental sustainability was not being taught separately as a subject in schools at the time. According to the research, in order to enhance environmental education, appropriate curricula should be created while taking the students' ages and requirements into consideration. In addition to textbook activities, students should also be taught through projects and activities.

The present study also concludes that school administrators have a significant influence on how students perceive themselves and how they acquire the necessary information, skills, and values. Strong leadership is needed to advance environmental sustainability. Although school administrators have created plans and regulations to protect the environment, sometimes staff members decide not to abide by them. According to the research, school administrators should be

aware about environmental concerns and sustainable development so they may do their own research, persuade stakeholders to assume leadership roles, and motivate others to follow suit.

In conclusion the study highlights that sustainable leadership is a management strategy that necessitates the leader to have a vision and purpose that are in line with the objectives of the school. Using the resources of the school in a way that benefits everyone who works and teaches there and preserves them for future generations is part of sustainable leadership. In order to do this, school administrators must establish both short- and long-term sustainability objectives, communicate and discuss them with their team, and work toward achieving them.

1.8. Future Implications

The focus of this study is on the promotion of environment sustainability among school leaders and to encourage government officials to incorporate ES in curricula by providing funds and resources. The results of this study can be useful for future researches that are related to this subject matter. Additionally, there is potential for further investigation into various other aspects that are relevant to environmental sustainability and its potential hindrances. By taking into account all aspects, from the importance of learning about environment sustainability to becoming a environment sustainable leaders in their society, this research study holds considerable value for future research

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