



Teachers' Awareness towards Green School Practices and Sustainable Development in Kerala

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ABSTRACT

School is a social institution which specifically designed for imparting knowledge and inculcating desirable values like environmental ethics to the younger ones. Making our schools more eco-friendly is one of the most important challenges faced by the twenty first century. In order to meet these challenges we must design sustainable societies that must embrace a new way of seeing the school system. Teachers play a pivotal role in implementing green school initiatives and fostering sustainability. This study explores the awareness of teachers in Kerala regarding green school practices and their contribution to sustainable development. The research was conducted at two districts of secondary schools in Kerala. The research method was carried out with a quantitative approach with a questionnaire-based survey of 100 secondary school teachers. The study examined the awareness of secondary teachers on green school practices and its role in sustainable development and it also focus on the challenges faced by teachers in promoting green school practices. The findings reveal high awareness levels but highlight barriers such as inadequate resources and training. Recommendations are given to enhance teacher engagement and promote green school practices.

Key words: Green School, Sustainable Development, Awareness, Eco-Friendly

Introduction

Schooling deeply influences the personality of the child in the formative years of their life. Making our schools more eco-friendly is one of the most important challenges faced by the twenty first century. In order to meet these challenges we must design sustainable societies that must embrace a new way of seeing the school system. The new schools should be models for sustainable development showing every child in the classroom and the playground how smart building and energy use can helps to tackle the issues of environment. School have a potential to use the resources in a sustainable way and also have the ability to teach communities of families, as well as the next generation. In order to meet this new concept of school called green school emerged in our academic realms very recently.

The concept of "Green School" emerged in Europe during the 1990s. The Rio Earth Summit in 1992 emphasized the urgent need for action in all areas where human activities impact the environment. This global focus on sustainability was further advanced by the 2002 World Summit on Sustainable Development (WSSD) in Johannesburg, which shifted the educational approach from merely teaching *about* the environment to actively teaching *for* sustainability, aiming for practical solutions to environmental challenges. Green school is acknowledged with those elements and practices that inculcate environmental sensitivity and promote environmental sustainability through various environment-friendly means that encourage judicious use of resources. It also caters to the physical, mental and emotional needs of a child by ensuring a school environment that is physically safe, emotionally secure and psychologically enabling. (National Council of Educational Research and Training [NCERT], 2015).

In India, the concept of Green Schools emphasizes integrating environmental sustainability into the entire school ecosystem, including curriculum, infrastructure, and community participation. Although the National

Curriculum Framework (2005) and the Right to Education Act (2009) advocate for environmental education, its implementation often remains limited to a subject-centric approach, with insufficient practical application. Efforts like the *Sarva Shiksha Abhiyan* and NCERT's resource materials aim to promote a whole-school approach, encouraging environmentally sustainable practices in schools across diverse regions. The state of Kerala is well known for its *educational landscape and progressive social indicators* moved one step ahead than other states of India. In Kerala, the Green School initiative has gained significant momentum through state-wide campaigns like the *Haritha Keralam Mission* and *Sanitation Mission*. As of 2024, over 6,900 schools have achieved "Green School" status, focusing on sustainable practices such as waste management, resource conservation, and eco-friendly infrastructure. Additionally, 50% of schools in the state have become garbage-free, with plans for all schools to implement comprehensive waste management and sustainability practices by the end of 2024.

Therefore in the present context to know about the awareness level of secondary school teachers, as the primary facilitators, significantly influence the success of such initiatives. The profile of Kerala, offers a unique context to examine teachers' awareness of green school practices and their role in sustainable development. This study aims to understand how educators perceive the concept, their level of engagement, and the challenges they face in fostering green practices within schools.

Objectives

1. To find out the level of awareness on green school practices among secondary school teachers of Kerala
2. To identify the challenges experienced by the teachers in implementing Green School practices in Kerala
3. To suggest possible measures to overcome the challenges in implementing green school practices

Methodology

The primary objective of the study was to evaluate how familiar teachers are with the principles and practices of Green Schools and their significance in sustainable development

The study adopted a mixed-methods approach, combining quantitative and qualitative data collection. A structured questionnaire was administered to 100 secondary school teachers from 25 schools in Kerala by using purposive sampling method. Secondary school teachers were selected from both aided and Government schools. Data were collected through a structured questionnaire. The questionnaire consist of both closed and open-ended questions to gather quantitative data on teachers' general perceptions, while the open ended questions aimed to collect the in-depth qualitative insights into their experiences and challenges with Green School initiatives. The questionnaire consist of questions from different dimensions of Green Schools include Awareness of Environmental Policies and Initiatives, Infrastructure Support, sustainable practices in schools, institutional support, student engagement, community involvement Curriculum Integration and Training and Resources, awareness about challenges and barriers.

Results and Discussions

In order to examine the awareness level of secondary school teachers on green school practices the three awareness level were analyzed as high, moderate and low awareness. The percentage scores obtained are presented in Table 1

Table 1: Awareness Level of Secondary School Teachers in Kerala Regarding Green School Practices

Awareness Level	Number of Teachers	Percentage (%)
High Awareness	48	32%
Moderate Awareness	65	44%
Low Awareness	37	24%
Total	150	100%

Thirty two percent have a high level of awareness regarding Green School practices. This shows that as significant portion of teachers is well-informed about the principles, practices, and importance of Green Schools in promoting sustainable development. These teachers are likely to be actively involved in implementing and advocating for sustainability initiatives in their schools. While the majority of teachers, 65 out of 150 (44%), have a moderate level of awareness. Therefore it can be interpret those teachers who are somewhat familiar with Green School concepts but may lack in-depth knowledge or confidence to implement these practices fully. They might require additional training and resources to enhance their understanding and engagement with sustainability initiatives. Few teachers have low level of awareness (24%) regarding Green School practices. This indicates that a notable proportion of teachers lack sufficient knowledge or exposure to Green School concepts. These teachers may not be aware of the environmental policies,

infrastructure requirements, or sustainable practices needed for effective implementation. Their lack of awareness could hinder the overall success of Green School initiatives.

Teachers' Awareness about the Challenges in Implementing Green School Practices

Secondary teacher's awareness on green school practices in school has shown that there are some challenges in implementing the green school practices in schools. These challenges with related to different areas are listed in table 2.

Table 2: Teachers' Awareness about the Challenges in Implementing Green School Practices

Challenges	Agree (%)	Disagree (%)
Poor Infrastructure	80%	20%
Insufficient Resources and Training	70%	30%
Reluctance to Change	60%	40%
low Student Engagement	65%	35%
Lack of Institutional Support	85%	15%

From the above Table highest percentage (85%) of the secondary school teachers agreed that they experience lack of Institutional Support, which emphasize widespread recognition of this issue among teachers were prevalent. is the most frequently reported challenge, it denote that many teachers feel their schools have low administrative backing and policy support for implementing Green School practices. Poor Infrastructure was also seen as highly faced by the teachers (80%) in their school while dealing with green school practices. This is another important barrier that schools may not have the necessary physical resources, such as recycling facilities or green spaces, to support sustainable practices. This adversely influence in implementing the green curriculum in school premises. Seventy percent of the secondary teachers agreed that they did not get sufficient training and resources for successful implementation of the green school practices. It highlights the importance for professional development and access to teaching materials that promote environmental education. 65% of secondary school teachers agreed that engaging students in Green School initiatives is a challenge. This may be due to a lack of interest, awareness, or motivation among students to participate in sustainability activities. Teachers may also struggle to design interactive and engaging programs that resonate with students. While 60% of secondary school teachers agreed resistance to change as a challenge, it has the lowest agreement level compared to other challenges. This suggests that while resistance exists, it may not be as pervasive as infrastructure or institutional issues. Resistance could stem from fear of additional workload, lack of understanding, or reluctance to adopt new practices.

Recommendations

The study suggests possible measures to overcome the challenges in implementing green school practices in secondary schools. The following are the major suggestions of the study.

1. Strengthening Institutional Support:

School management should create a clear policy framework for Green Schools, outlining objectives, responsibilities, and required actions. This policy should be aligned with national sustainability goals and should include incentives for schools that implement Green School practices successfully. The action plan involve appoint a coordinator for proper discharging of the duty, and develop a green policy that strengthen waste reduction, water saving energy recycling etc. Without active institutional support, it becomes challenging for teachers to integrate sustainability practices into daily school operations.

2 Provide adequate training

Teacher must have updated knowledge on green school practices for these teachers must attend regular training sessions, workshops, and access to educational resources focused on sustainability. Shared efforts between educational institutions, environmental organizations, and government agencies can help bridge this gap. Collaboration with environmental NGOs or experts to deliver training on implementing Green School initiatives in classrooms. Provide teachers with updated resources, research, and case studies of successful Green Schools to inspire best practices.

3. Promote Student involvement and Ownership:

In order to ensure students active engagement in Green School initiatives form eco-clubs and encourage student-led sustainability projects. For this organize green committees led by students to promote eco friendly awareness campaigns, set up of school gardens and cycling drives etc. offer prize for active participant in the green school practices.

4. Teach sustainable development as interdisciplinary subject

Incorporate environmental education and sustainability principles into the school curriculum, making it a cross-curricular subject that is not confined to a single discipline. In order to practice this develop a comprehensive curriculum that includes sustainability topics across subjects like science, geography, social studies, and language arts. Organize field visits, nature walks, and interactive sessions with local environmental activists to deepen students' understanding of sustainability.

5. Improve Infrastructure and Resources:

Modernize school facilities to make them more ecologically friendly and make sure there are enough resources available to adopt sustainable practices. What needs to be done about this, Incorporate green spaces that support biodiversity and environmental education into the school grounds. Install solar panels and energy-efficient lighting to lessen the school's carbon footprint. Install rainwater collection systems, compost organic waste, and separate recyclables.

6. Evaluation, Monitoring and Recognition:

Set up a monitoring and evaluation system to assess the progress of Green School initiatives and recognize successful implementation. The adequate steps for this involve Conduct periodic evaluations to track the progress of sustainability practices and adjust strategies as needed. Set suitable performance indicators for Green School practices (e.g., reduction in waste generation, energy savings, and water conservation). Appreciate with reward schools and teachers for their achievements in promoting sustainability through awards and certification programs.

Conclusion

Given the concerning level of environmental deterioration that the globe is currently experiencing, the idea of "green schools" is more important in Kerala schools. As a result, the study shows that although a large percentage of secondary school teachers in Kerala are moderately to highly aware of Green School practices, many secondary school teachers still struggle with issues such a lack of infrastructure, poor training, and institutional support. The successful adoption of sustainable practices in schools is hampered by these obstacles. Addressing these issues requires strengthening teacher capacity through ongoing training, including sustainability into the curriculum, upgrading environmentally friendly facilities, and encouraging community and student involvement. Kerala's secondary schools can play a significant role in sustainable development by embracing a cooperative approach, encouraging environmental responsibility and awareness among future generations.

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