Secondary School Teachers Attitude Towards Environmental Knowledge

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Abstract:
The importance of environmental education in secondary schools cannot be overstated, as it plays a critical role in shaping future generations' attitudes and behaviors towards environmental sustainability. Secondary School Teachers serve as key influencers in the classroom. This abstract explores the attitudes of secondary school teachers towards environmental knowledge and their potential impact on students' environmental awareness and engagement. The study adopts a qualitative research approach and surveys to gather data from a sample of secondary school teachers. The participants were selected from diverse geographical locations, representing both urban and rural settings, to capture a range of perspectives. The present sample includes the secondary Teachers from Haldwani (Uttarakhand) comprising of 80 teachers male as well as female from Government and Private Schools. While a significant number of teachers displayed a strong positive attitude and recognized the importance of incorporating environmental education into the curriculum, some exhibited apathy or disinterest in the subject matter because all have different ways to see things. Teachers with positive attitudes were found to be more likely to integrate environmental knowledge across different subjects, incorporate experiential learning approaches, and engage students in hands-on environmental projects. In contrast, teachers with negative attitudes tended to approach environmental education as an additional burden or perceive it as irrelevant to their subject domains.

Keywords: sustainability, incorporating, experiential learning

Introduction:
“Teaching children about the natural world should be treated as one of the most important events in their lives.”
The increasing awareness of environmental issues has prompted the need for effective environmental education at all levels of the education system. Secondary schools play a crucial role in shaping students' attitudes and behaviors towards the environment, making the attitudes of secondary school teachers towards environmental knowledge a vital area of research. Understanding the attitudes of these teachers can provide valuable insights into the current state of environmental education and identify potential areas for improvement.

“Earth and sky, woods and fields, lakes and rivers, the mountain and the sea, are excellent schoolmasters, and teach of us more than we can ever learn from books.” - JOHN LUBOC

Environmental knowledge encompasses a wide range of topics, including sustainability, conservation, climate change, pollution, and biodiversity. It involves understanding the interconnections between
human activities and the natural world, as well as recognizing the importance of sustainable practices for the well-being of both present and future generations. Teachers' attitudes towards environmental knowledge can significantly influence the quality and effectiveness of environmental education in secondary schools. This research paper aims to investigate the attitudes of secondary school teachers towards environmental knowledge. By examining their perceptions, beliefs, and behaviors related to environmental issues, we can gain a comprehensive understanding of how teachers engage with and prioritize environmental education in their classrooms. This information will be instrumental in informing educational policymakers, school administrators, and curriculum developers on strategies to enhance environmental education.

The attitudes of secondary school teachers towards environmental knowledge can be influenced by various factors, such as personal beliefs, training, experience, and the resources available to them.

**Need and Significance of the Study:**
Environmental issues have become increasingly critical and pressing in recent years, with increasing pollution. As a result of COVID there is a significant decrease in carbon emission and Global Warming. Recognizing the urgency of addressing these challenges, there is a growing need to educate individuals about the environment and foster environmentally responsible behaviors. Secondary schools, as important institutions for shaping students' knowledge and attitudes, play a crucial role in promoting environmental education.

The attitudes of secondary school teachers towards environmental knowledge are of utmost importance for several reasons. Firstly, teachers are the primary facilitators of education in the classroom, and their beliefs, values, and instructional practices significantly influence students' learning experiences. Understanding teachers' attitudes towards environmental knowledge can help identify potential barriers that may hinder the integration of environmental education into the curriculum, as well as highlight effective strategies and best practices that can be shared and replicated.

Secondly, secondary school teachers' attitudes towards environmental knowledge can impact students' attitudes and behaviors towards the environment. Research has shown that teachers who are enthusiastic and knowledgeable about environmental issues are more likely to inspire and engage their students in environmental learning. On the other hand, teachers who lack confidence or have limited knowledge in this area may not prioritize environmental education, leading to a missed opportunity to instill environmental awareness and a sense of responsibility in the next generation.

**Statement of the Problem:**
The present investigation is titled as “Secondary School Teachers Attitude towards Environmental knowledge”

**Objective of the Study:**
- To find out environmental knowledge in secondary school Teachers of different gender that is male and female.
- To find out environmental knowledge in secondary school Teachers of different sectors that is Government and Private.
To find out environmental knowledge in secondary school Teachers of different Academic qualifications that is Graduate and Post Graduate.

**Hypothesis of the Study:**
- There is no significant difference between the level of Environmental knowledge among the male and Female Secondary School Teachers.
- There is no significant difference between the level of Environmental knowledge among these secondary school teachers of Government and Private Schools.
- There is no significant difference between the level of Environmental knowledge among secondary school Teachers of different Academic qualifications that is Graduate and Post Graduate.

**Delimitation of the Study:**
This research study focuses on examining the attitudes of secondary school teachers towards environmental knowledge specifically in the context of Haldwani, a city in Uttarakhand, India.

**Sample Size:** The study will include a total of 80 secondary school teachers, comprising 40 male and 40 female teachers. This distribution aims to ensure gender balance and representation in the research sample.

**School Type:** The research will encompass both government and private secondary schools in Haldwani. This inclusion allows for a comparison of attitudes between teachers in different school settings, considering potential variations in resources and institutional priorities.

**Geographic Focus:** The study is limited to teachers in Haldwani, a specific city within the Uttarakhand region. This geographic delimitation enables a more focused analysis of the attitudes of teachers in this particular context, considering any regional or local factors that may influence their perspectives.

**Attitudes towards Environmental Knowledge:** The research will primarily investigate teachers' attitudes towards environmental knowledge. This encompasses their perceptions, beliefs, and behaviors related to environmental issues within the context of secondary school education.

**Methodology of the study:**
The research study employs a descriptive survey method to examine the attitudes of secondary school teachers towards environmental knowledge in Haldwani. To collect data, the study utilizes a research tool developed by Seema Dhawan, a researcher or educator who has developed a survey or questionnaire specifically designed to assess attitudes towards environmental knowledge.

The study selects both government and private secondary schools from Haldwani. This sampling strategy aims to include a diverse range of schools representing different educational settings and institutional characteristics. The inclusion of government and private schools allows for a comparison between these two sectors in terms of their teachers' attitudes towards environmental knowledge.

The data were analyzed using various statistical methods like Mean, SD and t-test. The score obtained by different groups are compared across the variable like gender, size, class and institutions.
Data Analysis:

**TABLE 1: Level of Environmental knowledge of Male and Female Teachers**

<table>
<thead>
<tr>
<th>Teachers</th>
<th>Mean</th>
<th>S.D.</th>
<th>t test (df =78)</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>144.9</td>
<td>7.98</td>
<td>0.2</td>
<td>NO</td>
</tr>
<tr>
<td>Female</td>
<td>147.4</td>
<td>6.96</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1 reveals the sd and mean of male and female secondary school teachers do not differ significantly in terms of their levels of Environmental Knowledge. The mean and S.D. score of male is 144.9 and 7.98 and Female is 147.4 and 6.96. The calculated t-value is 0.2 which is not significant at 0.01 level. Hence the first Null Hypothesis- There is no significance difference between the level of Environmental Knowledge among male and female teachers is accepted.

**COMPARISON BETWEEN MEAN AND S.D. OF MALE AND FEMALE TEACHERS**

![Graph showing comparison between mean and S.D. of male and female teachers]

**Table 2: Level of Environmental knowledge of Government and Private Teachers**

<table>
<thead>
<tr>
<th>Teachers</th>
<th>Mean</th>
<th>S.D.</th>
<th>t-test (df =78)</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>145.4</td>
<td>8.06</td>
<td>1.25</td>
<td>NO</td>
</tr>
<tr>
<td>Female</td>
<td>148.18</td>
<td>9.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2 reveals that male and female secondary school teachers do not differ significantly in terms of their levels of Environmental Knowledge. The mean and S.D. score of male is 145.4 and 8.06 and Female is 148.18 and 9.3. The calculated t-value is 1.25 which is not significant at 0.01 level. Hence the first Null Hypothesis- There is no significance difference between the level of Environmental Knowledge among male and female teachers is accepted.

**COMPARISON BETWEEN MEAN AND S.D. OF GOVERNMENT AND PRIVATE TEACHERS**

<table>
<thead>
<tr>
<th>Teachers</th>
<th>Mean</th>
<th>S.D.</th>
<th>t-test (df =78)</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>144.2</td>
<td>8.02</td>
<td>1.22</td>
<td>NO</td>
</tr>
<tr>
<td>Female</td>
<td>146.2</td>
<td>8.03</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 3 reveals that male and female secondary school teachers do not differ significantly in terms of their levels of Environmental Knowledge. The mean and S.D. score of male is 144.2 and 8.02 and Female is 146.2 and 8.03. The calculated t-value is 1.22 which is not significant at 0.01 level. Hence the first Null Hypothesis- There is no significance difference between the level of Environmental Knowledge among male and female teachers is accepted.

Results
In the present study, the first hypotheses that “There is no significant difference between level of Secondary School Teachers Attitude Towards Environmental Knowledge” were formulated. According to:

a. In the respect level of Environmental Knowledge there was no significant differences between male and female teacher.
b. In the respect level of Environmental Knowledge there was no significant differences between male and female teachers of Govt. and Private School.
c. In the respect level of Environmental Knowledge there was no significant differences between male and female teachers of Govt. and Private Schools from U.K. and C.B.S.E. Board.

Discussions
In the present study “level of Secondary School Teachers Attitude Towards Environmental Knowledge, Knowledge is the storage of events, concepts, principles, information etc. which the human mind gets through experiences. With the help of recalling or recognition, anyone can expose his ideas of material phenomena. The environmental knowledge thereby defined as the storage of events, concepts, principles, information etc about the broad environment surrounding, which the individual mind gathers by through experiences. In the book, “Dictionary of Education.” Carter V. Good defines knowledge as the (a) The accumulated facts, truth, principles and information to which the human mind has access. (b) The out-come of specified rigorous inquiry. The people get experience in the process of environment and depend upon the accumulated facts, truth etc. They expose their opinions either by recalling or by recognizing. Knowledge is defined as the remembering of previously learned material, this may involve the recall of a wide range of material, from specific facts to complete theories, but all that is required in bringing to mind of the appropriate information (Linn and Ground, 2002). This definition finds its root in Bloom’s Taxonomy of Educational Objectives and also accordingly knowledge represents the lowest level of learning outcomes in the cognitive domain. As such, knowledge is gained either by experience, learning and perception or through association and reasoning. Consequently, Environmental Knowledge can be defined as remembering of previously learned material regarding the environment. The researchers have considered Environment Knowledge in her present study as the information gained regarding the natural environment (both biotic and abiotic components) through the curriculum.

Educational Implication:
The educational implications of the present study are as follows:
1. The study reveals two comparisons on the basis level of Environmental Knowledge there was no significant differences between male and female teacher.
2. The study reveals two comparisons between male and female teachers of Govt and Private School
3. How this study will be helpful in day-to-day life.
5. Self-development
6. Behavioral Approach

References
1. David Attenborough (b. 1985: A natural historian, broadcaster, and environmental advocate, Attenborough has produced numerous documentaries that raise awareness about environmental issues and biodiversity conservation.
2. Sylvia Earle (b. 2009): A marine biologist and oceanographer, Earle is a prominent advocate for ocean conservation and has led numerous expeditions to explore and protect marine ecosystems.