

## **Influence of Parental Educational Qualifications on the Environmental Attitude of Secondary School Students in Aizawl City**

David C Lalruatpuia\*  
Lalchawimawii Ngente\*\*

### ***Abstract***

*This study investigated the influence of parental educational qualifications on the environmental attitudes of secondary school students in Aizawl City, Mizoram. A total of 443 students from government, private, and deficit schools were surveyed using the Environmental Attitude Scale (EAS-TH) by Taj (2016), and data were analysed through descriptive statistics and independent samples t-tests. Results revealed significant differences in students' environmental attitudes with respect to both fathers' and mothers' educational qualifications, with students whose parents were graduates or above demonstrating more favourable attitudes than those whose parents had lower educational attainment. These findings support the view that parental education enhances access to knowledge, modelling of eco-friendly behaviours, and intergenerational transmission of values. The results suggest that in the socio-cultural context of Aizawl City, where traditional ecological values intersect with urban change, parental education plays a critical role in shaping adolescents' perspectives. The study concludes that strengthening school-family partnerships can further enhance environmental education outcomes and foster responsible youth behaviour.*

**Keywords:** Environmental Attitudes, Secondary School Students, Parental Education, Aizawl City

### **Introduction**

Environmental challenges have become one of the most pressing global concerns of the 21st century. Issues such as climate change, deforestation, biodiversity loss,

\*David C Lalruatpuia: M.Ed. Student, Institute of Advanced Studies in Education, Aizawl  
Email: d9862894303@gmail.com ; phone - 9862894303

\*\*Lalchawimawii Ngente: Assistant Professor, Institute of Advanced Studies in Education, Aizawl  
Email: choii.bed@gmail.com

air and water pollution, and waste management are exerting immense pressure on ecosystems and human societies alike. In India, rapid urbanisation and industrialisation have aggravated these problems, leading to deteriorating air quality, groundwater depletion, improper waste disposal, and declining forest cover. These challenges are not only ecological but also social, as they directly affect the health, livelihoods, and quality of life of millions of people. For a region like Mizoram, which is endowed with rich biodiversity and fragile ecosystems, environmental degradation poses an even greater threat, as it risks undermining both traditional ways of life and future development prospects.

While policies, technology, and infrastructure are crucial for addressing environmental problems, they alone cannot secure sustainable solutions. What is equally, if not more, important is the development of positive environmental attitudes among citizens. Knowledge of environmental issues provides awareness, but it is attitudes that shape everyday behaviour, values, and decisions. A person may know about the importance of reducing plastic use, but unless they possess a favourable attitude toward environmental responsibility, they may not act on that knowledge. This distinction highlights why education should not only focus on imparting knowledge but also on cultivating environmental attitudes that can translate into meaningful and sustained action.

Recognising the importance of attitudes, both international and national initiatives have emphasised education for sustainable development. The United Nations Sustainable Development Goal (SDG) 4.7 stresses that education should empower learners to acquire the knowledge, skills, and attitudes needed to promote sustainable development. Similarly, the National Education Policy (NEP) 2020 of India highlights the integration of environmental awareness, conservation, and sustainable practices into school curricula, aiming to nurture environmentally responsible citizens. These policy frameworks demonstrate a global and national consensus that environmental education must extend beyond knowledge to include values, behaviours, and attitudes. Against this backdrop, the present study focuses on the influence of parental educational qualifications on the environmental attitudes of secondary school students in Aizawl City, offering insights into how families and schools together can shape a more sustainable future.

### **Rationale Of the Study**

Although schools play a major role in teaching environmental responsibility, the family is often where values are practiced on a daily basis. Parents influence children not only through direct instruction but also through the behaviours they model. Those with higher levels of education are often more likely to discuss environmental issues

at home, make informed choices about resources, and encourage environmentally friendly habits through example. In this way, the educational background of parents may significantly affect how children perceive and respond to environmental concerns.

However, the connection between parental education and students' environmental attitudes is not always straightforward. Leppänen et al. (2012), in the Finnish context, observed that students' environmental attitudes often reflected broader family values rather than the parents' formal level of education. Similarly, Meeusen (2014) highlighted that the way families communicate about environmental matters—whether through open discussions, shared activities, or role-modelling—can be just as influential as educational attainment itself. Ozsoy (2012) also argued that in certain cases, factors such as gender and school experiences may have a stronger influence than parental education in shaping students' environmental attitudes. These studies indicate that while parental education matters, it interacts with other social and cultural dynamics that influence the development of young people's environmental orientations.

In Mizoram, there is still very limited research examining the relationship between parents' educational qualifications and students' environmental attitudes. Aizawl City, in particular, is experiencing rapid urbanisation, where families are navigating a balance between traditional respect for nature and emerging patterns of consumerism and waste. Understanding whether and how fathers' and mothers' education levels influence students' environmental attitudes is crucial for developing interventions that connect school learning with home practices. This study seeks to fill this gap by systematically examining the environmental attitudes of secondary school students in Aizawl City with reference to their parents' educational qualifications, thereby contributing to both local and wider discussions on the role of family background in environmental education.

## **Review of Related Literature**

Grønhøj and Thøgersen (2009) analysed "Like Father, Like Son? Intergenerational Transmission of Values, Attitudes, and Behaviours in the Environmental Domain" and discovered that pro-environmental values and behaviors are often passed from parents to children, with lifestyle habits formed early in life contributing to sustainable attitudes in adolescence.

Tuncer et al. (2009) conducted "A Comparative Study on Environmental Attitudes of Turkish and Finnish University Students" and found that students whose parents had higher educational qualifications tended to report more positive environmental attitudes. The study highlighted that parental education not only influences students'

awareness of environmental issues but also shapes their sense of responsibility and willingness to adopt sustainable behaviors.

Leppänen et al. (2012) analysed “Parent–Child Similarity in Environmental Attitudes: A Pairwise Comparison” and found that environmental attitudes between mothers and fathers were positively related. Girls’ attitudes were more closely aligned with their fathers’ than with their mothers’, while boys tended to exhibit fewer positive attitudes than both their parents and their female peers. The study also reported that parental education level did not significantly affect the environmental attitudes of adolescents.

Damerell, Howe, and Milner-Gulland (2013) studied “Child-Oriented Environmental Education Can Influence Parents’ Knowledge and Household Behaviour” and found that environmental education targeted at children can indirectly raise environmental awareness and pro-environmental actions among parents, demonstrating a bidirectional influence between generations.

Meeusen (2014) conducted “The Intergenerational Transmission of Environmental Concern: The Influence of Parents and Communication Patterns within the Family” and found that both mothers and fathers influenced children’s environmental concern, with open communication strengthening this effect. The study emphasized that the family is a key socialization agent for environmental values.

Hammami et al. (2017) conducted “Survey on Awareness and Attitudes of Secondary School Students Regarding Plastic Pollution: Implications for Environmental Education and Public Health in Sharjah City, UAE” and found that students whose mothers had higher educational qualifications displayed greater understanding of environmental issues and were more likely to engage in pro-environmental actions.

Zachariou et al. (2020) investigated “Exploring the Attitudes of Secondary Education Students on Environmental Education in Relation to Their Perceptions on Environmental Problems: The Case of the Prefecture of Viotia” and reported that satisfaction with Environmental Education (EE) programs was higher among students whose mothers were senior high school graduates, and urban students demonstrated stronger demand for EE due to greater awareness of local environmental problems.

Tok (2021) examined “Investigating the Changes in Children’s Environmental Attitude: The Role of Parents’ Education, School Type, and a Mobile Game Intervention” and found that girls and private-school students scored higher on environmental attitudes. Fathers’ education levels were significantly associated with children’s environmental attitudes, and mobile game interventions were effective in enhancing pro-environmental outlook.

Bashir et al. (2022) carried out “A Study of Environmental Awareness, Attitude, and Participation Among Secondary School Students of District Kulgam, J&K, India” and revealed that parental educational qualifications were not found to have a consistent impact on environmental awareness.

Kirbiš (2023) studied “Environmental Attitudes among Youth: How Much Do the Educational Characteristics of Parents and Young People Matter?” and provided empirical evidence that both parents’ and young people’s own educational characteristics significantly influence environmental attitudes. The study also noted that the strength of this relationship varies by context, suggesting that socio-cultural factors may shape the way parental education impacts youth environmental concern.

### **Objectives of the Study**

1. To compare the environmental attitude of secondary school students in Aizawl City with regards to their fathers’ educational qualifications.
2. To compare the environmental attitude of secondary school students in Aizawl City with regards to their mothers’ educational qualifications.

### **Null Hypotheses of the Study**

1. There is no significant difference between the environmental attitude of secondary school students of:
  - a) Class X passed and XII passed fathers.
  - b) Class XII passed and graduate & above fathers.
  - c) Class X passed and graduate & above fathers.
2. There is no significant difference between the environmental attitude of secondary school students of:
  - a) Class X passed and XII passed mothers.
  - b) Class XII passed and graduate & above mothers.
  - c) Class X passed and graduate & above mothers.

### **Research Methodology**

This study employed a descriptive survey method to examine the environmental attitudes of secondary school students in Aizawl City in relation to their parents’ educational qualifications. The descriptive survey design was considered appropriate as it allows the systematic collection of quantitative data to determine the current status of students’ environmental attitudes and to compare variations between groups.

### **Population and Sample of the Study**

The target population for the study comprised secondary school students enrolled in government, private, and deficit secondary schools within Aizawl City, Mizoram. From this population, a total of 443 students were selected as the sample for the study.

**Table 1: Sample Profile of the Study**

EDUCATIONAL QUALIFICATION	Class X passed	Class XII passed	Graduate & Above	TOTAL
FATHER	205	99	139	443
MOTHER	221	123	99	443

**Tool Used**

The study utilized the Environmental Attitude Scale (EAS-TH) developed and standardized by Taj (2016). The scale consists of 60 items covering six key dimensions: health and hygiene, wildlife, forests, polluters, population explosion, and general environmental concern.

**Statistical Techniques Used**

Data were analysed using mean, standard deviation, and percentage for descriptive statistics. To compare environmental attitudes regarding parental educational qualifications, independent samples t-tests were applied to determine statistical significance.

**Analysis and Interpretation**

**1. Environmental Attitude of Secondary School Students in Aizawl City with Regards to their Fathers’ Educational Qualifications.**

The environmental attitude scores of secondary school students according to their fathers’ educational qualifications is presented in Table 2.

Table 2: Environmental Attitude of Secondary School Students in Aizawl City with Regard to Their Fathers’ Educational Qualifications

Level	Class X Passed		Class XII Passed		Graduate & Above	
	No	Percent	No	Percent	No	Percent
Extremely High	2	0.98%	1	1.01%	3	2.17%
High	11	5.37%	1	1.01%	20	14.49%

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Above Average	56	27.32%	30	30.3%	63	45.65%
Average	136	66.34%	67	67.68%	52	37.68%
Below Average	0	0	0	0	0	0
Low	0	0	0	0	0	0
Extremely Low	0	0	0	0	0	0
<b>Total</b>	<b>205</b>	<b>100</b>	<b>99</b>	<b>100</b>	<b>139</b>	<b>100</b>

As shown in Table 2, a large proportion of students whose fathers had education up to Class X (66.34%) and Class XII (67.68%) were concentrated in the average category of environmental attitude. Conversely, among students whose fathers were graduates and above, a relatively higher percentage were found in the above average (45.65%) and high (14.49%) categories, while only 37.68% remained in the average category.

To examine whether environmental attitudes vary according to fathers' educational qualifications, independent samples t-tests were conducted for three pairwise comparisons: Class X vs Class XII, Class XII vs Graduate & Above, and Class X vs Graduate & Above. The results are summarized in Table 3.

Table 3: Comparison of Students' Environmental Attitude Scores Based on their Fathers' Educational Qualifications

Comparison Groups	N (G1)	Mean (G1)	SD (G1)	N (G2)	Mean (G2)	SD (G2)	t-value	Significance Level
Class X vs Class XII	205	165.33	13.59	99	164.00	41.41	0.072	Not Significant
Class XII vs Graduate & Above	99	164.00	41.41	139	174.54	16.49	2.40	0.05

- a) In the Class X vs Class XII comparison, the mean scores were 165.33 and 164.00 respectively, with a t-value of 0.072, which was not significant. Therefore, the null hypothesis is accepted, indicating no significant difference in students' environmental attitudes between these two groups.
- b) In the Class XII vs Graduate & Above comparison, students whose fathers were graduates or above had a higher mean score (174.54 vs 164.00), and the t-value

of 2.40 was significant at the 0.05 level. Hence, the null hypothesis is rejected, showing that higher paternal education beyond Class XII contributes to more positive environmental attitudes.

- c) In the Class X vs Graduate & Above comparison, the difference in mean scores (174.54 vs 165.33) produced a t-value of 5.44, which was significant at the 0.01 level. Thus, the null hypothesis is rejected, confirming a strong positive influence of fathers' higher educational attainment on students' environmental attitudes.

**2. Environmental Attitude of Secondary School Students in Aizawl City with Regard to their Mothers' Educational Qualifications.**

The environmental attitude scores of secondary school students were analysed with regards to their mothers' educational qualifications. The results are summarized in Table 4.

Table 4: Environmental Attitude of Secondary School Students in Aizawl City Based on Their Mothers' Educational Qualifications.

Level	Class X Passed		Class XII Passed		Graduate (& above)	
	No	Percent	No	Percent	No	Percent
Extremely High	3	1.36 %	2	1.63 %	1	1.01 %
High	12	5.43 %	4	3.25 %	17	17.17%
Above Average	64	28.96 %	37	30.08 %	48	48.48%
Average	142	64.25 %	80	65.04 %	33	33.33%
Below Average	0	0	0	0	0	0
Low	0	0	0	0	0	0
Extremely Low	0	0	0	0	0	0
Total	221	100	123	100	99	100

Table 5 reveals that the majority of students whose mothers were educated up to Class X (64.25%) and Class XII (65.04%) were classified in the average category of environmental attitudes. In contrast, students whose mothers were graduates and above exhibited a greater concentration in the above average (48.48%) and high (17.17%) categories, with only 33.33% remaining in the average category

To examine whether environmental attitudes vary according to mothers' educational

qualifications, independent samples t-tests were conducted for three pairwise comparisons: Class X vs Class XII, Class XII vs Graduate & Above, and Class X vs Graduate & Above. The results are summarized in Table 5.

Table 5: Comparison of Students' Environmental Attitude Scores Based on their Mothers' Educational Qualifications

Comparison Groups	N (G1)	Mean (G1)	SD (G1)	N (G2)	Mean (G2)	SD (G2)	t-value	Significance Level
Class X vs Class XII	221	165.97	14.78	123	165.72	13.77	0.157	Not Significant
Class XII vs Graduate & Above	123	165.72	13.77	99	175.04	16.58	4.48	0.01
Class X vs Graduate & Above	221	165.97	14.78	99	174.04	16.58	4.67	0.01

- a) In the Class X vs Class XII comparison, the mean scores were 165.97 and 165.72 respectively, with a t-value of 0.157, which was not significant. Therefore, the null hypothesis is accepted, indicating that mothers' education up to Class XII does not produce a significant difference in students' environmental attitudes.
- b) In the Class XII vs Graduate & Above comparison, students whose mothers were graduates or above had a higher mean score (175.04 vs 165.72), and the t-value of 4.48 was significant at the 0.01 level. Hence, the null hypothesis is rejected, showing that higher maternal education beyond Class XII positively influences environmental attitudes.
- c) In the Class X vs Graduate & Above comparison, the difference in mean scores (174.04 vs 165.97) produced a t-value of 4.67, which was significant at the 0.01 level. Thus, the null hypothesis is rejected, confirming that mothers' higher educational attainment contributes significantly to shaping more positive environmental attitudes among students.

## Findings

1. Significant differences in environmental attitudes were observed based on fathers' educational qualifications, with higher paternal education associated

with higher mean scores.

2. Significant differences in environmental attitudes were also observed based on mothers' educational qualifications, with higher maternal education associated with higher mean scores.

### **Discussions**

The findings of the study underscore the significant role parental education plays in shaping the environmental attitudes of secondary school students. Students with more highly educated fathers and mothers consistently displayed stronger environmental attitudes, which supports the view that parents serve as both knowledge providers and behavioural role models. This aligns with several previous studies that reported similar associations between parental education and students' environmental perspectives. The results confirm that educated parents are better positioned to discuss environmental issues, encourage eco-friendly household practices, and promote decision-making aligned with sustainability.

At the same time, these findings resonate strongly with the socio-cultural context of Mizoram. Traditionally, the Mizo community has maintained close ties with nature through agricultural practices, customary respect for forests, and collective approaches to resource use. However, with increasing urbanisation and modern lifestyles, these practices are gradually shifting. In this changing context, parental education becomes a bridge between traditional ecological values and modern environmental challenges, providing adolescents with a balanced framework for sustainable living.

The broader implications of the study suggest that environmental education in schools should not operate in isolation but should actively involve families and communities. Schools could initiate programmes that encourage joint parent–student participation, such as environmental awareness workshops, eco-clubs, and community projects. Policymakers should consider strategies that integrate environmental practices into both school curricula and family life, creating consistency in the values students encounter. Ultimately, the findings highlight that cultivating environmental responsibility requires a multi-stakeholder approach, where schools, families, and communities work together to reinforce sustainable attitudes and behaviours.

### **Conclusion.**

The study establishes that parental educational qualifications exert a significant influence on the environmental attitudes of secondary school students in Aizawl City, with graduate and above parents contributing to more positive outlooks compared to those with lower educational attainment. This underscores the role of

family background, particularly parental education, in complementing school-based environmental instruction and shaping adolescent values during a formative stage. Within the unique socio-cultural context of Mizoram, where traditional ecological respect intersects with the pressures of urbanisation, parental education emerges as an important determinant of youth perspectives. The findings suggest that environmental education will be more effective if it extends beyond classrooms to include parental engagement and community participation. By strengthening school–family partnerships and encouraging parental involvement in awareness initiatives, policymakers and educators can foster consistent pro-environmental attitudes. Future studies may expand this inquiry by considering related factors such as socio-economic status, parental occupation, and communication patterns within families to provide a more comprehensive understanding of the home environment’s influence on sustainable behaviour.

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