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Environmental Literacy among Primary Level Students in Bangladesh: A Comparative Study between Urban and Rural Areas

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ABSTRACT

Environmental literacy (EL) is considered a key skill for primary students who will be responsible for solving the environmental problems that affect Bangladesh and other countries. This study explored the EL of primary students in urban and rural areas of Bangladesh, using the five EL components: knowledge, skill, awareness, attitude, ability to evaluate, and participation, declared in 1977 Tbilisi conference on environment education. A qualitative approach was used, and data were collected through surveys, focus group discussions, and student interviews. Thematic and descriptive analysis was performed on the findings. The results indicated that urban students had higher EL scores than rural students in all components. The study also suggested the implications of the findings for curriculum developers, policymakers, environmental NGOs, local project planners, and future research

Key Words: *Environmental Literacy, Primary Education, Urban and Rural Bangladesh Comparative Study*

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Introduction

Bangladesh is one of the most environmentally vulnerable countries in the world due to its geographical location, extreme weather conditions, and environmental crimes. The country faces many risks and challenges from climate change, such as floods, droughts, cyclones, salinity intrusion, sea level rise, and water scarcity (Ahsan & Warner, 2014; Sharif & Uddin, 2023). Therefore, Bangladesh must enhance the EL of its citizens, especially the young generation, who will shape the country's future. Bangladesh's education policy (2010) recognizes the importance of EE and EL and states that "students shall know and appreciate our nature, environment, and world and work to advance those aspects." The policy also aims to build students as skilled

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human resources to fight against climate change and to create social awareness about the environment among them (MoE, GoB, 2010). However, the implementation and effectiveness of EE and EL in Bangladesh are questionable, as there is a lack of research and evaluation on this topic.

Moreover, there is a gap in the literature on the EL of primary-level students in Bangladesh and how it differs between urban and rural areas. This is a significant gap, as primary education is the foundation of lifelong learning and environmental citizenship, and urban and rural areas have different environmental contexts and challenges, which may influence the EL of the students. Alkaher and Goldman (2017) argued that EL should be cultivated in children as early as primary school, as this is the stage when they form their values and behaviors.

Research problem with justification

Bangladesh is rapidly progressing with its development initiatives, but environmental protection has taken a back seat in the process (Tithi, 2019). Environmental education (EE) is a key strategy to address this challenge, as it aims to foster environmental literacy and responsibility among the people (Disinger & Roth, 2000; Roth, 1992; Stapp, 1969). Environmental literacy is the ability to understand and act upon environmental issues at local and global levels (Meilinda et al., 2017). It comprises four components: environmental knowledge, awareness, attitudes, and skills (Hungerford & Peyton, 1977). Research has shown that investing in EE can indirectly improve environmental quality by enhancing people's environmental knowledge, awareness, and willingness (Suárez-Perales et al., 2021). Therefore, it is essential to develop environmental literacy in the population, especially the young generation, who will shape the country's future. Alkaher and Goldman (2017) argued that environmental literacy should be cultivated in children as early as primary school, as this is when they form their values and behaviors.

Research gap

The existing literature on environmental literacy in Bangladesh mainly focuses on the secondary and higher education levels and reveals mixed findings on the students' knowledge, attitudes, and practices. Sarkar et al. (2008) explored the environmental literacy of secondary students in Bangladesh and found that they had different views and practices on environmental issues. Moreover, Sarkar (2011) examined the environmental attitudes of secondary students in Bangladesh and found that they had positive attitudes, especially girls and rural students. Furthermore, Sarkar and Ara (2007) compared the environmental literacy of urban and rural secondary students of Natore district in Bangladesh and found that they had low knowledge but favorable attitudes and practices. On the other hand, Chowdhury (2014) assessed the nature of environmental education in Bangladesh at the school level and found that the curriculum and

textbooks did not adequately cover contemporary environmental issues. In this context, Islam (2021) analyzed the environment and disaster education in the secondary school curriculum in Bangladesh and found that there were gaps and cross-cutting issues in the titles, elements, and learning outcomes. Further, Mamun et al. (2010) investigated the environmental awareness of higher secondary students in Tangail district and found that they had a moderate understanding and opinion of the environmental problems and solutions. Moreover, Ullah et al. (2013) studied the environmental awareness and behavior of private university students in Sylhet and found that they considered global warming, water conflict and energy crisis as major environmental disasters. However, there is no documented evidence of studies on environmental literacy among primary-level students in Bangladesh and its comparative study between urban and rural areas. However, there needs to be more research on the environmental literacy of primary-level students in Bangladesh and how it differs between urban and rural areas. This is an important and timely topic, as primary education is the foundation of lifelong learning and environmental citizenship. This research aims to fill this gap by conducting a comparative study on the environmental literacy of primary-level students in Bangladesh.

Purpose and Research Question

The purpose of the study is to explore environmental literacy among primary school students in rural and urban areas of Bangladesh. The study addressed the following research questions.

1. How do the knowledge, skills, and awareness of environmental literacy exist among the primary-level students in urban and rural areas of Bangladesh?
2. How do environmental attitudes, ability to evaluate, and participation in environmental literacy exist among the primary level students in urban and rural areas of Bangladesh?
3. How does the environmental literacy of primary-level students in Bangladesh differ between urban and rural areas?

Literature Review and conceptual framework

According to Marcinkowski (2010), significant environmental and educational movements have enormously impacted how environmental education (EE) has changed. The Conservation Education Movement (1870s), the Outdoor Education Movement (1920s), and the Nature Study Movement (1891) were all important movements that laid the groundwork for environmental education (EE) in the 1930s (Marcinkowski, 2010).

The International Environmental Education Program (IEEP), a joint project of UNESCO and UNEP, has greatly aided the EE goals and objectives outlined in the Belgrade Charter (UNESCO, 1975). The Tbilisi Conference of 1977 added even more emphasis to learning by doing and learning in groups. It additionally advocated for environmental education to be taught in both formal and informal settings (UNESCO, 1978). Futhazar (2014) says that the

Aichi Targets are essential parts of the Strategic Plan for Biodiversity (2011–2020), which shows how important it is to be aware of biodiversity in everyday life.

In 1987, UNESCO emphasized that environmental education can help foster new ideas and skills while shaping the beliefs, motivations, and commitments that lead to responsible decision-making (UNESCO, 1987). The study by Riordan (2010) stresses how important it is for students to solve problems, think critically, and make sound environmental changes. Wals (2012) say that kids should learn about the environment and how to protect it. However, Zsóka et al. (2013) highlight how important it is to teach people about the environment so that they become more aware, change their lifestyles, and change how they buy things.

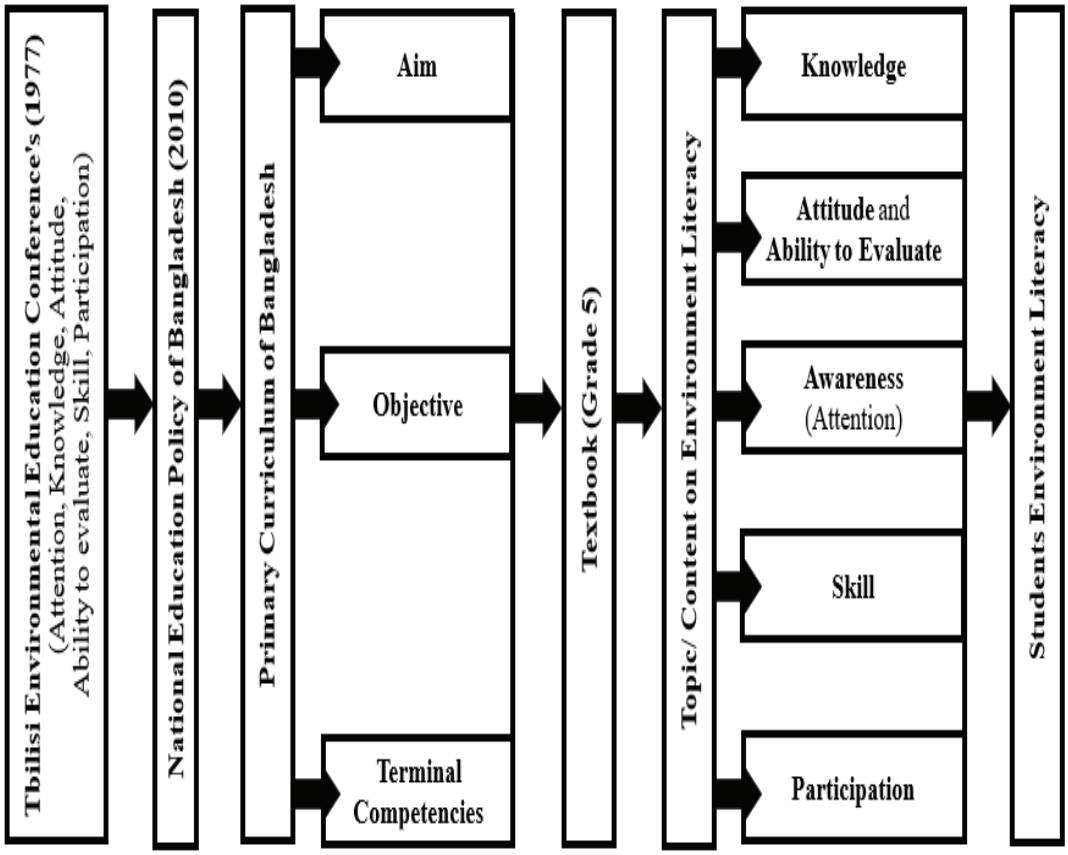
Bangladesh's Education Policy 2010 clarifies that environmental education must be taught in primary schools. This aligns with the end-of-primary-school competencies that include recognizing nature, dealing with environmental and climate risks, and knowing how population affects the environment.

Duerden and Witt's (2010) study show that well-structured environmental education programs positively affect what students know, how they feel, and what they do. Palmer (1998), Schmieder (1977), and Hsu (1997) assert that EE is a multidisciplinary, all-encompassing, and lifelong program that fosters active citizenship in problem-solving while fostering awareness, understanding, and empathy for the natural world.

The fundamental concept of the study is consistent with the Tbilisi Environmental Education Conference's (1977) framework, which divides EE into six levels: attention, knowledge, attitude, skills, ability to evaluate, and participation. The research is based on the worldwide framework of the Tbilisi Conference (1977). The 2010 education policy of Bangladesh contextualizes it, with the grade five curriculum, textbooks, and content serving as the research's foundation. A visual representation of the conceptual framework is outlined in the figure 1.

Figure 1.

Conceptual Framework of the Research



Methodology

All three research questions in this study are exploratory, and a qualitative approach is warranted when the nature of research questions requires exploration (Stake, 1995). The primary data source for this study was the primary-level students of Bangladesh. Students from both rural and urban primary schools participated in this study. Data were gathered through questionnaires of survey, semi-structured interview schedules, and FGD guidelines. The reader can critically evaluate the appropriateness of the conclusions due to employing survey research in this study (Ponto, 2015). This study employed semi-structured interview as it is exploratory in nature (Megaldi & Berler, 2020),. In focus group discussion, there were open-ended discussions to address, share, and explore a predefined topic (Goodman & Evans, 2010). All the questions of survey, interview and FGD were developed in light of the environment related content of primary science and social science textbooks. The simplicity of the questions was mentioned in light of the participants' ages and mental development. In this study, 200 current primary

graduates from 20 primary schools in Bangladesh (10 from rural areas and 10 from urban areas) were selected randomly for the survey. In total, 10 interviews (5 from urban and 5 rural) and 4 FGD (2 in urban and 2 in rural schools) were conducted by selecting the participants using convenience sampling technique. All gathered data were analyzed thematically to find the responses and code each under different themes concerning the research questions. After that, codes were assigned by numbers, and the number of times codes appeared was developed as numeric data from responses for each category.

Findings and Discussion

This part of the article discusses findings as five major themes constructed from analysis of data.

Theme-A: Students' knowledge about environment

Students' knowledge about the environment is explored with the questionnaire, interview, and FGD and discussed in this section. The responses from the questionnaire are presented in Table 1.

Table 1.
Students knowledge about the environment

Questions	Students Response					
	Urban (n=100)			Rural(n=100)		
	Yes	No	Don't Know	Yes	No	Don't Know
Do you know about the elements of the environment?	100%	0%	0%	100%	0%	0%
Do you think the environment's components are related to each other?	100%	0%	0%	82%	0%	18%
Do you know about global warming?	83%	11%	6%	54%	27%	19%
Do you think the environment can pollute because of human actions?	60%	28%	12%	51%	30%	19%
Do you understand the concept of biodiversity and it's importance?	63%	29%	8%	43%	34%	23%

The findings show that all (100%) students from urban areas strongly believe they know the components of the environment and how they are connected. On the other hand, all rural students claimed to know about the components, and 82% think that the components are interconnected. The interview and FGD responses are also identical; students have mentioned soil, air, rivers,

oceans, animals, birds, houses, etc., as components of the environment. While describing the interconnectedness of the environment, half of the students from urban and rural areas failed to describe how the environment's components are interconnected. The significance of early education in developing environmental literacy has been highlighted in studies (Damerell et al., 2013) that are consistent with this solid foundation in environmental fundamentals. Also, the statement by Wang et al. (2023) highlights the possibility that focused interventions could improve the comprehension of environmental interdependence among students in rural areas. Kennedy et al. (2009) also suggested that holistic approaches to environmental education can address the knowledge gap between urban and rural students, fostering a deeper understanding of environmental issues.

Many urban students (83%) know about global warming, though rural students are less aware (54%) of the issue. The interview and FGD found that students from urban areas know about global warming and its impacts, like rising sea levels and increasing temperatures. They have learned about the concept from their schools, family, and media. The rural students said they learned about global warming after encountering droughts, floods, and river erosion. One of the students from a rural area said, "Last year, we lost our crops due to a flood and sudden rain. I asked my teacher why that happened, and she said that global warming is causing this.". The findings indicate a possible difference in how environmental education is done in urban and rural settings (Leiserowitz et al., 2019). Climate change education in schools and communities can increase rural students' awareness and understanding of global warming (Nkoana, 2019).

Though 60% of urban students agree that people's actions can pollute the environment, there is significant doubt among the students in rural areas (30%). From the interview and FGD, it has been found that less than half of the participants from both areas can name actions like cutting trees, building buildings and factories, using vehicles, etc., as people's actions that cause environmental pollution. According to Mittenzwei et al. (2023), this difference might be the result of different natural problems or educational priorities in each area.

Most urban students (63%) claim to understand biodiversity and why it is essential, and only 43% of rural students say they know about biodiversity. The students discussed the components of biodiversity, like every living entity and natural thing, in the interview and FGD. One student from urban areas said, "Biodiversity is essential because every component of the environment is interconnected, and we are part of this." This could mean a need for more environmental education, especially in rural areas (Dolničar et al., 2012). Environmental education programs should emphasize biodiversity conservation's importance and relevance to ecosystem stability and human well-being (Brias-Guinart et al., 2020).

Theme-B: Students' Attitude and Ability to evaluate the environment

Students' attitude and ability to evaluate the environment are explored with the questionnaire, interview, and FGD and discussed in this section. The responses from the questionnaire are presented in Table 2.

Table 2.

Students' Attitude and Ability to Evaluate the Environment

Questions	Students Response					
	Urban (n=100)			Rural(n=100)		
	Yes	No	Don't Know	Yes	No	Don't Know
Do you pick up trash when you see it on the ground?	51%	49%	0%	27%	73%	0%
Do you prefer to walk to school to decrease carbon emissions?	17%	83%	0%	92%	8%	0%
Do you use a reusable water bottle or bag in your daily life?	73%	27%	0%	66%	34%	0%
Do you turn off the water while not using it, like brushing your teeth?	61%	39%	0%	93%	7%	0%
Do you consistently save energy, like elctricy, gas, water, etc.?	57%	43%	0%	45%	55%	0%

About half of urban students (51%) say they pick up trash to show they are somewhat civically responsible. This fits with an earlier study that showed that teaching about the environment can make people more environmentally friendly (Smith et al., 2021). However, only 27% of students in rural places do this, which could mean there are not enough community-based or awareness-raising efforts (Peberdy et al., 2019). During the FGD and interview, students from urban areas mentioned using dustbins to manage trash. Rural students mostly throw things on empty land and in ponds.

Students in urban areas only like walking 17% of the time. This could be because of problems with city facilities or their other transportation habits. One student said in an interview, "We need to attend school early in the morning, and there are no spaces for walking because of too many vehicles on the road." On the other hand, 92% of rural kids would rather walk to school, which shows a strong preference for sustainable transportation. This may be because rural communities are closer and have fewer transportation options (Harrison et al., 2020).

61% of students in urban areas and 93% in rural areas say they always turn off the water when not using it, especially when brushing their teeth (19%). From the interview and FGD, it has been found that rural students mostly use tube wells or ponds, so there is less scope for water waste. Additionally, this fits with research that stresses how easy, everyday actions can help save water (Tijs et al., 2017).

73% of urban students use reusable things well, which aligns with more prominent efforts to make urban areas more environmentally friendly (Partono et al., 2020). Similarly, 66% of rural students say they use reusable things. In the interview and FGD, students mentioned using old calendar papers to make models, and rural students use tree leaves and bamboo sticks as learning aids. However, rural students need to be educated to increase the use of reusable items (Nxumalo et al., 2020).

57% of students in urban areas and 45% in rural areas show different amounts of consistency in saving energy. This might be because of infrastructure, socio-economic factors, or easy access to knowledge (Yue et al., 2013). In an interview, one urban student said, "I always turn off the light after leaving the room, and my father is very conscious about using gas." Customized educational programs might help close these gaps and raise awareness for everyone Dimante et al. (2016). In 2024, Li et al. also stated the importance of educational programs for the energy-saving behaviors of middle school students in rural China.

Theme-C: Students' awareness on environment

Students' environmental awareness is explored with the questionnaire, interview, and FGD and discussed in this section. The responses from the questionnaire are presented in Table 3.

Table 3.

Students' Awareness on Environment

Questions	Students Response					
	Urban (n=100)			Rural(n=100)		
	Yes	No	Don't Know	Yes	No	Don't Know
Have you discussed the impact of pollution on the Earth with your friends?	39%	45%	16%	21%	61%	18%
Have you discussed the effects of cutting down too many trees with your friends?	20%	80%	0%	15%	85%	0%
Have you discussed the importance of using public transportation to reduce pollution?	8%	70%	22%	0%	77%	23%

Do you think that you have responsiblility to protect the environment?	43%	10%	47%	34%	24%	42%
Do you know what steps you can take to protect the environment?	12%	73%	15%	5%	81%	14%

39% of students in urban areas admit they talked to a friend about the effects of pollution. This shows a middling level of knowledge and conversation. A potential opportunity for dialogue may exist in rural areas, where only 21% of respondents have addressed pollution (Da Silva et al., 2023). The interview and FGD answers point to the same conclusions, and the students do not know what to say.

Students in urban and rural areas are less interested in discussing what happens when too many trees are cut down. Only 20% of students in urban areas have talked about this, and only 15% of students in rural places have done so. This could mean that forest conservation teaching needs to be stepped up (Santiago-Gómez et al., 2023). One student from the rural area said in the interview, "We have a big forest of trees, and we often cut them down to sell." Students from urban areas said in the FGD that they do not have any place to plant trees.

There are few conversations about how important it is to use public transportation to reduce pollution. Only 8% of people in urban areas say they have had such conversations. None of the people who answered have talked about this in rural places. In interviews and focus groups, urban students discussed using rickshaws and their cars for safety. This demonstrates that there might be a knowledge gap regarding how public transportation is good for the environment, which specific educational initiatives could fill (Gosling et al., 2017).

43% of students in urban areas and 34% in rural areas feel they must protect the world. However, 10% of people in urban areas do not feel this responsibility, and 24% of people in rural areas do not feel this responsibility either. An interviewee from the rural area said, "I am not responsible because I do not do anything to hurt the environment. "Encouraging a feeling of environmental responsibility is very important, especially in rural areas (Steg., 2016).

People do not know much about specific ways to protect the environment in urban places (12%) and rural places (5%). Most of the students in both urban and rural areas (73% in urban and 81% in rural) are still trying to figure out what to do next. The interviews and FGD showed that the students do not understand the steps, like being aware of leading talks. This shows how important it is to have education initiatives that

make people more aware of environmental problems and give them practical ways to help protect the environment (Dresner, 2012).

Recent studies also highlight the importance of incorporating environmental education into school curriculums. Powell et al. (2019) emphasize the role of education in fostering environmental awareness and action among students. Furthermore, community-based initiatives have effectively raised environmental consciousness and engagement (Schultz et al., 2012).

Theme-D: Students skills on environmental issues

Students' skills on environmental issues are explored with the questionnaire, interview, and FGD and discussed in this section. The responses from the questionnaire are presented in Table 4.

Table 4.

Students Skills on Environmental Issues

Questions	Students Response					
	Urban (n=100)			Rural(n=100)		
	Yes	No	Don't Know	Yes	No	Don't Know
Have you ever created artwork or a project using recycled materials?	47%	45%	8%	22%	71%	7%
Have you ever worked for biodiversity reservation	7%	81%	12%	3%	69%	28%
Have you ever stopped someone from polluting the environment?	10%	90%	0%	16%	60%	24%
Do you suggest your mother to separate reusable and composable wastage? (proposal)	31%	69%	0%	4%	51%	45%
Have you reduced your plastic conjumtions to save the environment?	41%	40%	19%	9%	67%	24%

With 47% of urban students doing art or projects using recycled materials, this is a high percentage. On the other hand, only 22% of students in rural areas say they do these things. This difference could be because of differences in how easy it is to get art materials or how much environmental education is stressed in different places (Van Boeckel, 2009). According to interviews and FGD, students use old posters and calendars to draw pictures and make models. The study by Rubén and Ángeles (2010) also mentioned that recycling materials in education is an effective way of managing waste.

The data show that only 7% of city students and 3% in rural areas are involved in biodiversity preservation efforts. It was found that students did not know much about biodiversity reservations from the interviews and focus groups. One student from the country said, "We kill snakes a lot because they are poisonous," and one student from the city said there were birds in the cage. This indicates a possible improvement in raising knowledge and involving students in conservation efforts (Ballouard et al., 2011; Dayer et al., 2020).

Only a small number of students in urban and rural settings (16%) say they stopped someone from harming the environment. "How can we stop the elderly from doing something?" was something that most of the students in the FGD agreed with. The results show how hard it is to step in during real-time events and how much more research is needed to find good ways to stop pollution (Austin et al., 1993)

31% of urban students propose that their mothers separate their trash, while only 4% of rural students would do the same. An interviewee from a rural area said, "We throw all of our trash on empty land or ponds." At the FGD, students from cities said they put all their trash in a bin and had a waste cleaner pick it up. One potential solution to close this gap could be to support waste separation activities (Christensen et al., 2011).

The data shows that urban (41%) and rural (9%) students know moderately about reducing plastic use. From the focus groups and interviews, students said using less plastic is essential because it gets in the way of drainage. This is part of a worldwide trend to use less single-use plastic. Educational campaigns and policy changes could raise knowledge and get people to act even more (Seyfang, 2009). In 2019, Heidbreder et al. mentioned that behavioral interventions could reduce plastic waste.

Theme-E: Students participation in environmental issues

Students' participation in environmental issues is explored with the questionnaire, interview, and FGD and discussed in this section. The responses from the questionnaire are presented in Table 5.

Table 5.

Students Participation in Environmental Issues

Questions	Students Response					
	Urban (n=100)			Rural(n=100)		
	Yes	No	Don't Know	Yes	No	Don't Know

Have you ever participated in a school or community clean-up event?	56%	44%	0%	51%	49%	0%
Have you participated in a tree-planting activity?	35%	65%	0%	85%	15%	0%
Do you believe that cleanliness is essential and always keeps you clean?	100%	0%	0%	100%	0%	0%
Do you actively contribute to saving natural resources at home and school?	46%	54%	0%	31%	40%	29%
Do you take part in activities that focus on protecting local ecosystems?	18%	74%	8%	12%	56%	32%

A significant percentage of students in urban as well as rural settings have taken part in school or community clean-up events (56% of urban students and 51% of rural students). From the FGD with students from rural areas, it was learned that some of them cleaned up their school grounds after the assembly. Two students from Urban said they had participated in campaigns with their father. This shows a promising trend in community involvement, which is in line with studies that show how these kinds of events can teach people to care about the environment (Chawla, 2001).

Tree-planting events are more popular with students in rural areas (85%) than with students in cities (35%). Students from urban areas who took part in the FGD said they did not have space to plant trees, and some of them grew flowers on their roofs. Potential determinants of this disparity include the accessibility of green areas and the attention given to tree-planting programs in rural academic curricula (Mouratidis, 2019; Nowak et al., 2013).

One interesting result is that all students, whether they live in a city or a rural area, agree that cleanliness is essential. Both the interview and the FGD showed that students usually bathe, brush their teeth, and cut their nails. This general agreement shows that cleaning is essential to people, which could be used to encourage more environmental responsibility (Kaplan, 1995).

46% of students in urban areas say they actively help save natural resources at home and school. Only 31% of students in rural areas say they do the same. A student from a city said, “We need to protect natural resources because there are not many of them.” Access to knowledge or resources may be the cause of this difference. Targeted education efforts could make students more aware of and interested in ways to protect resources (Steg & Vlek, 2009).

Only 18% of students in urban areas and 12% of students in rural areas take part in events that protect local ecosystems. It was found through interviews and FGD that students are not sure about the idea and do not know what they can do to help protect the environment. This could mean that environmental education programs that stress how important it is to protect local ecosystems and wildlife could be helpful (Hungerford & Volk, 1990).

Summary of the findings

The summary of the findings of the themes is represented in this section. A comparison of the results for urban and rural areas is presented in Figure 2.

Figure 2.

Summary of the Findings of the Themes

Students in urban areas know more about the environment (81% of them) than students in rural areas (66% of them). Things like educational tools, the focus of the curriculum, and involvement in urban sustainability projects might cause this difference (Damerell et al., 2013).

Remarkably, the proportion of rural students (65%) who possess a positive attitude and the capacity to assess the environment is more significant than that of urban students (52%). This could be because people in rural places have a stronger connection to nature, or it could be because different ways of teaching environmental assessment skills have made them more common (Díaz, 2022). Students in urban areas are more aware (24% vs. 15%) than students in rural areas. Students in urban areas may be more aware of environmental problems because they live in places with lots of people and a wide range of environmental problems (Tanner, 1980). Students in urban areas (27%) have more skills linked to environmental issues than students in rural areas (11%). This means that urban students may have more chances to get hands-on experience, work on environmental projects, or do things outside of school that help them learn new skills (Bengtsson et al., 2005). 51% of students in urban areas and 56% of students in rural areas say they are actively involved in environmental problems, though rural students say they are more involved. This goes against the idea that people in cities might be more environmentally conscious. There could be many reasons for this, and they need to be looked into more (Chawla, 2001).

Implications

- Curriculum and textbook developers can use the research findings in developing content and teaching-learning methodologies. They may modify teaching-learning strategies, enhance content and time for environmental topics, and increase practical sessions within the curriculum and textbooks.
- The research findings will assist the government authorities and policymakers in charge of education and the environment in reviewing and modifying policies that make people more aware of the environment, especially in rural areas. This could mean changing related guidelines, addressing specific topics, and allocating resources for specific interventions in rural areas.
- The findings can be used as a starting point for more education and environmental science research. For instance, they might examine particular factors contributing to

the disparities between urban and rural areas and evaluate the efficacy of various educational interventions.

- The findings can help local leaders plan projects for their communities. To encourage eco-friendly commuting, local governments may consider implementing infrastructure enhancements or awareness campaigns if, for instance, there needs to be more knowledge regarding the advantages of sustainable transport in urban areas.
- The results of this study can be used as a starting point for more research in education and environmental science. For instance, they could investigate particular causes of the noted differences between urban and rural areas and evaluate the efficacy of various educational initiatives. Environmental NGOs can use this study to help develop programs to reach people. Based on the limitations discovered, they may focus on implementing awareness campaigns in rural regions to address specific issues such as pollution and biodiversity conservation.

Conclusion

Sustainable development in Bangladesh requires environmental education to encourage environmental literacy and responsibility, which are neglected. In conclusion, this study highlights significant disparities in environmental literacy among primary students in urban and rural areas of Bangladesh. Urban students demonstrated higher EL scores across knowledge, skills, awareness, attitudes, ability to evaluate, and participation. The results emphasize the necessity for focused interventions in rural education, the revision of curriculum, and policy modifications to narrow the EL disparity. Addressing these disparities is crucial for fostering environmental responsibility and sustainable practices among the primary students who will shape the future of Bangladesh.

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