



Integrating Environmental Emergency Awareness into English Language Teaching: A School-Based Framework for Higher Secondary Students in Jammu and Kashmir, India

¹Yasar Hussain, ²Umah E Roman and ³Neerja Sharma

¹Research Scholar, Department of English, Dr. A.P.J. Abdul Kalam University, Indore, Madhya Pradesh, India

²B.Sc. and M.Sc., Department of Zoology, Jai Road, Bhaderwah, Vasek Dera, Soti, Dudwar, Gondoh, Bhalessa, Jammu and Kashmir, India

³M.A., Department of English, Durganagar, Doda, Jammu and Kashmir, India

DOI: <https://doi.org/10.5281/zenodo.23057415>

Corresponding Author: Umah E Roman

Abstract

Environmental emergencies, including floods, landslides, forest fires, extreme weather events, and water contamination, create significant challenges for communities and educational institutions. Schools have an important role in developing students' awareness of environmental hazards, emergency communication, and preparedness. Although disaster education is commonly associated with science and geography, English language teaching can also provide opportunities to develop environmental awareness, communication skills, and the ability to understand safety information. This article explores a conceptual framework for integrating environmental emergency awareness into English language teaching among higher secondary students in Jammu and Kashmir, India. Drawing on environmental education, disaster risk reduction, and communicative language teaching, it examines how reading passages, classroom discussions, report writing, debates, and role-play activities can connect language development with emergency preparedness. The article proposes a school-based framework incorporating environmental content, language-learning objectives, emergency communication activities, and assessment strategies. It also discusses implementation challenges, teacher preparation, ethical considerations, and implications for curriculum development. As a conceptual study, it does not report original empirical findings. Future empirical research should evaluate the effectiveness of the proposed framework in different educational settings.

Keywords: Environmental emergency awareness, English language teaching, disaster risk reduction, emergency communication, higher secondary education, Jammu and Kashmir

1. Introduction

Environmental emergencies have become an important concern for educational institutions, communities, and public authorities. Floods, landslides, forest fires, extreme weather events, and environmental contamination can disrupt education, damage infrastructure, and threaten human well-being. These hazards demonstrate the importance of public awareness, preparedness, effective communication, and coordinated responses. Education can contribute to disaster risk reduction by helping students understand environmental hazards, recognise warnings, interpret safety instructions, and communicate relevant information. Schools are particularly important because they provide structured learning environments in which

preparedness and responsible decision-making can be developed. Research Scholar, Dr. A.P.J. Abdul Kalam University, Indore, Madhya Pradesh, India Address: Alni Gangota; presently residing at Soti, Bhalessa In many educational settings, disaster preparedness is primarily associated with science, geography, or general awareness programmes. However, English language teaching can also contribute to this educational objective. Language is essential for communicating warnings, understanding emergency instructions, preparing reports, participating in discussions, and explaining environmental risks. English language classrooms provide opportunities to develop these competencies through meaningful and practical activities. Students can read passages about environmental hazards,

write reports on local incidents, discuss preventive measures, prepare awareness messages, and participate in simulated emergency communication exercises. This interdisciplinary approach may be particularly relevant in Jammu and Kashmir, where mountainous terrain and varied climatic conditions create exposure to hazards such as landslides, floods, heavy snowfall, and other weather-related disruptions. The relevance and prevalence of particular hazards vary across locations, so educational materials should be based on verified local information. The integration of environmental emergency awareness into English language teaching can connect language learning with real-world communication needs. However, its effectiveness depends on appropriate instructional design, accurate information, teacher preparation, and systematic evaluation. This article therefore proposes a conceptual framework for integrating environmental emergency awareness into English language teaching at the higher secondary level.

2. Conceptual Background

2.1 Environmental education

Environmental education aims to develop the knowledge, awareness, attitudes, and skills needed to understand environmental systems and respond responsibly to environmental challenges. The Tbilisi framework established an influential foundation for environmental education by emphasising awareness, knowledge, attitudes, skills, and participation. These dimensions can inform classroom activities that encourage students to identify environmental problems, examine their consequences, and consider appropriate responses.

2.2 Disaster risk reduction and preparedness

Disaster risk reduction involves understanding and reducing disaster risks through prevention, preparedness, mitigation, and other appropriate measures. The United Nations Office for Disaster Risk Reduction emphasises the importance of understanding disaster risk and strengthening preparedness. The Sendai Framework for Disaster Risk Reduction 2015–2030 identifies education and public awareness as important components of disaster risk reduction. In school settings, disaster education should be age-appropriate, locally relevant, and consistent with official safety guidance.

2.3 Communicative English language teaching

Communicative language teaching focuses on the meaningful use of language for real-life purposes. Students develop linguistic competence through activities that require them to understand information, express ideas, interact with others, and communicate effectively. Environmental emergency topics can provide practical contexts for these activities. Reading an official weather advisory can develop reading comprehension and vocabulary; writing an incident report can develop organisation, grammar, and factual description.

3. Statement of the Problem

Environmental emergency preparedness requires individuals to understand information, interpret warnings, and communicate appropriately. However, opportunities to

develop these competencies may not be systematically integrated into all areas of school education. English language teaching frequently uses reading passages, writing assignments, discussions, and presentations. These activities can potentially support environmental awareness and emergency communication, but a clearly structured approach is needed to connect them with language-learning objectives. The central problem addressed in this article is how English language teaching can be organised to support environmental emergency awareness while maintaining its primary educational purpose of developing language proficiency.

4. Research Objectives

1. To examine the relationship between environmental emergency awareness and English language teaching.
2. To identify language-learning activities that can incorporate disaster preparedness and environmental safety.
3. To propose a school-based framework for integrating emergency-related content into English lessons.
4. To examine the potential educational applications of the framework in Jammu and Kashmir.
5. To identify implementation challenges and suggest directions for future empirical research.

5. Research Questions

1. How can environmental emergency awareness be incorporated into English language teaching at the higher secondary level?
2. Which English language activities can support students' understanding of environmental hazards and safety information?
3. How can locally relevant environmental issues be used to develop reading, writing, speaking, and listening skills?
4. What challenges may arise when implementing this interdisciplinary approach?
5. How can the proposed framework be evaluated in future school-based research?

6. Methodology

6.1 Research approach

This article adopts a conceptual and literature-informed approach. It develops a proposed educational framework by drawing on established concepts from environmental education, disaster risk reduction, and communicative language teaching. It does not claim to be a systematic review because no formal systematic search, screening procedure, or study-quality assessment has been completed for this manuscript.

6.2 Sources informing the framework

The conceptual discussion is informed by relevant international frameworks and educational literature, including the Tbilisi framework for environmental education, the Sendai Framework for Disaster Risk Reduction 2015–2030, UNESCO's Education for Sustainable Development framework, and literature on communicative language teaching and meaningful classroom interaction.

6.3 Framework development

The proposed framework was developed around four components: environmental emergency content; English language learning activities; emergency communication competencies; and assessment and reflection. Each component is intended to contribute to an integrated classroom approach in which language objectives remain explicit and environmental information is accurate and relevant.

6.4 Scope and limitations of the method

The article presents a proposed framework rather than an experimentally tested intervention. It does not involve a student sample, questionnaire administration, classroom experiments, or statistical analysis. Consequently, the framework's effectiveness cannot be established from this conceptual discussion alone. Its educational value should be examined through future empirical studies.

7. Integrating Environmental Emergency Awareness into English Language Teaching

7.1 Reading comprehension through environmental texts

Reading is an important component of English language learning. Environmental emergency materials can provide authentic texts for developing comprehension, vocabulary, inference, and critical reading. Suitable materials may include age-appropriate explanations of landslides, floods, forest fires, extreme weather, and environmental pollution. Students can identify the main idea, distinguish facts from opinions, identify cause-and-effect relationships, and summarise essential information.

7.2 Writing skills through emergency-related tasks

Writing activities can help students communicate environmental information clearly and logically. Possible tasks include writing a report about an environmental incident using verified information, preparing a paragraph on disaster preparedness, writing a formal letter about a local environmental concern, preparing an awareness notice,

and writing an essay on the role of education in reducing disaster risks. These tasks can develop grammar, vocabulary, paragraph organisation, coherence, and formal writing skills.

7.3 Speaking and listening activities

Speaking and listening are essential for effective communication. Classroom discussions and structured role-play can provide opportunities to practise these skills. Students may discuss school preparedness, the importance of following official warnings, or the environmental consequences of unsafe waste disposal. Role-play activities should remain educational simulations and must not replace formal emergency drills or authorised safety procedures.

7.4 Vocabulary development

Environmental emergency education introduces vocabulary that can be taught through contextualised language activities. Examples include hazard, preparedness, evacuation, contamination, prevention, emergency advisory, sustainable, and warning. Vocabulary instruction should include pronunciation, meaning, collocations, and practical use rather than relying solely on memorisation.

7.5 Debate and critical thinking

Debates can help students develop spoken fluency, logical reasoning, listening skills, and the ability to support claims with evidence. Possible topics include the role of schools in disaster preparedness, the importance of environmental awareness in local communities, responsibilities in waste management, and the relationship between responsible tourism and environmental protection. Students should distinguish evidence-based arguments from unsupported claims.

8. Proposed School-Based Framework

The proposed framework connects environmental content with language outcomes and emergency awareness.

Table 1: Proposed school-based framework

Component	Classroom activity	Intended learning outcome
Environmental content	Read a verified passage about a local hazard	Environmental understanding and reading comprehension
Language practice	Write a report or explanatory paragraph	Writing accuracy and organisation
Oral communication	Conduct a structured discussion	Speaking fluency and evidence-based expression
Information literacy	Interpret an official advisory	Comprehension and source evaluation
Emergency awareness	Analyse a fictional preparedness scenario	Recognition of appropriate safety information
Reflection	Write a short learning reflection	Critical thinking and written expression

Component Classroom activity Intended learning outcome
Environmental content Read a verified passage about a local hazard Environmental understanding and reading comprehension
Language practice Write a report or explanatory paragraph Writing accuracy and organisation
Oral communication Conduct a structured discussion Speaking fluency and evidence-based expression
Information literacy Interpret an official advisory Comprehension and source evaluation
Emergency awareness Analyse a fictional preparedness scenario Recognition of appropriate safety information
Reflection Write a short learning reflection Critical thinking and written expression
The framework should be adapted to the

prescribed syllabus, learners' language proficiency, and the educational context of each school.

9. Relevance to Jammu and Kashmir

Jammu and Kashmir contains varied geographical environments, including mountainous regions, river valleys, forests, agricultural areas, and urban settlements. Different locations face different environmental and weather-related hazards. For higher secondary students in the Chenab Valley and other mountainous areas, verified local examples involving landslides, heavy rainfall, road disruptions, or snowfall may provide meaningful contexts for language learning. Other schools may focus on floods, water quality,

waste management, forest conservation, or other locally relevant issues. Teachers should select examples according to the circumstances of their own communities rather than assuming that every hazard is equally relevant across the region. Local environmental themes can also help students develop descriptive and analytical writing. Any discussion of emergency procedures must follow official instructions and established school safety arrangements.

10. Potential Educational Benefits

Meaningful language learning: Environmental topics can provide authentic contexts for reading, writing, speaking, and listening. Contextual vocabulary development: Students can encounter specialised words and practise using them in meaningful sentences. Critical thinking: Students can identify main ideas, examine evidence, distinguish facts from opinions, and explain cause-and-effect relationships. Information literacy: Reading official advisories and educational materials can provide opportunities to discuss reliable sources and accurate information. Environmental awareness: Structured lessons may help students understand environmental hazards, preparedness, and responsible communication. These are proposed educational benefits, not demonstrated outcomes of the present article. Their extent will depend on instructional quality, learners' prior knowledge, classroom conditions, and the duration of implementation.

11. Challenges in Implementation

11.1 Limited instructional time

Teachers must complete the prescribed syllabus and prepare students for assessments. Additional content may be difficult to accommodate unless activities are directly connected to established language-learning objectives.

11.2 Teacher preparation

English teachers may require support to select reliable environmental materials and distinguish general environmental awareness from technical disaster-management instruction. Interdisciplinary collaboration with science teachers and authorised safety personnel may help address this challenge.

11.3 Language proficiency differences

Students may have different levels of English proficiency. Difficult terminology can create barriers to comprehension. Teachers should select age-appropriate texts, introduce key vocabulary, and provide explanations or bilingual support where appropriate.

11.4 Accuracy of information

Incorrect emergency information can create confusion. Teachers should use verified sources and avoid presenting unconfirmed reports, rumours, or invented statistics as facts.

11.5 Emotional sensitivity

Environmental disasters may affect students personally or their communities. Classroom materials should be selected sensitively, avoiding unnecessary graphic details and allowing students to participate without disclosing personal experiences.

12. Recommendations

1. English language teachers should consider using environmentally relevant texts that support prescribed language-learning objectives.
2. Teacher training programmes should include practical examples of interdisciplinary teaching and information literacy.
3. Schools should coordinate emergency-related educational activities with their established safety procedures.
4. Classroom materials should use reliable information and locally appropriate examples.
5. Assessment should distinguish English language performance from environmental knowledge and self-reported awareness.
6. Researchers should evaluate the framework using clearly defined research questions and appropriate empirical methods.
7. Future studies should examine implementation across different schools and geographical settings before making wider claims about effectiveness.

13. Implications for Educational Policy and Practice

The framework may be relevant to curriculum planners, teacher educators, school administrators, and educational researchers interested in interdisciplinary learning. Curriculum planners could examine whether selected environmental themes can be integrated into existing English language activities without overloading the syllabus. Teacher educators could use the framework to demonstrate how authentic texts and communication tasks can connect language learning with real-world concerns. School administrators may consider coordinating classroom awareness activities with existing school safety programmes. However, language lessons should complement, rather than replace, formal disaster preparedness arrangements and specialised training. For researchers, the framework offers a basis for developing measurable questions about language outcomes, environmental knowledge, information literacy, and students' perceptions of interdisciplinary instruction.

14. Limitations and Directions for Future Research

This article is conceptual and does not present original empirical data. Its proposed relationships between environmental emergency awareness and English language learning therefore remain to be tested. Future research could implement the framework in selected higher secondary schools using a pre-test and post-test design. Where feasible, a comparison group could help researchers examine differences associated with the instructional programme. Researchers should use validated or carefully developed assessment instruments, document the intervention, and report the sample-selection procedure transparently. English language outcomes and environmental awareness should be measured separately. Qualitative interviews and classroom observations could provide additional information about student participation, teacher experiences, and implementation challenges. Studies across multiple districts could examine whether the framework requires adaptation to different geographical conditions, language backgrounds, and school resources.

15. Conclusion

Environmental emergency awareness and English language teaching can be connected through meaningful, carefully planned classroom activities. Reading verified environmental texts, writing reports, interpreting advisories, participating in discussions, and practising structured communication can provide opportunities to develop language skills while examining environmental hazards and preparedness. This article has proposed a conceptual framework for integrating environmental emergency awareness into English language teaching among higher secondary students in Jammu and Kashmir. The framework links environmental content, language-learning activities, emergency communication, and assessment while recognising the importance of curriculum alignment, reliable information, teacher preparation, and student safety. The approach should not be regarded as a substitute for specialised disaster-management education. Its proposed contribution lies in showing how English language classrooms may support environmental understanding and responsible communication alongside established language-learning objectives. Empirical evaluation is necessary to determine whether the framework improves students' language performance, environmental knowledge, or emergency-related information literacy.

16. References

1. Council of Europe. Common European framework of reference for languages: learning, teaching, assessment-Companion volume [Internet]. Strasbourg: Council of Europe Publishing; c2020. Available from: <https://www.coe.int/en/web/common-european-framework-reference-languages>
2. Harmer J. The Practice of English Language Teaching. 4th ed. Harlow: Pearson Longman; c2007.
3. Richards JC. Communicative Language Teaching Today. Cambridge: Cambridge University Press; c2006.
4. UNESCO. Intergovernmental Conference on Environmental Education, Tbilisi, USSR, 14–26 October 1977: Final Report. Paris: UNESCO; c1978.
5. UNESCO. Education for Sustainable Development Goals: Learning Objectives [Internet]. Paris: UNESCO; c2017. Available from: <https://unesdoc.unesco.org/ark:/48223/pf0000247444>
6. UNESCO. Education for Sustainable Development: A Roadmap [Internet]. Paris: UNESCO; c2020. Available from: <https://unesdoc.unesco.org/ark:/48223/pf0000374802>
7. United Nations Office for Disaster Risk Reduction. Sendai Framework for Disaster Risk Reduction 2015–2030 [Internet]. Geneva: United Nations; c2015. Available from: <https://www.undrr.org/publication/sendai-framework-disaster-risk-reduction-2015-2030>
8. United Nations Office for Disaster Risk Reduction. Terminology on Disaster Risk Reduction [Internet]. Geneva: United Nations Office for Disaster Risk Reduction. Available from: <https://www.undrr.org/terminology>

Creative Commons (CC) License

This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY 4.0) license. This license permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.