

Eco-friendly classroom: Environmentally-based language teaching for sustainable community

A Maghfiroh^{1*}, D S K Dewi¹, D A Mustikawati¹ and Subangun¹

¹ Universitas Muhammadiyah Ponorogo, Ponorogo, Indonesia

*Corresponding author email: ana_maghfiroh@umpo.ac.id

Abstract

The current global environmental disaster affecting the planet's ecosystems requires immediate action from all sectors and disciplines, including English language teaching (ELT), that must join in taking action to respond. This study aimed at (1) exploring the importance of environmental education in ELT, (2) explaining the strategy for incorporating environmental education in ELT, and (3) finding the implications of this action. This study used qualitative descriptive research design, with observation and documentation as tools for data collection. Data analysis was carried out through three stages following the Miles and Huberman (2008) model namely data reduction, display, and verification. The findings revealed that: first, incorporating environmental education into ELT is now considered very crucial, due to the increasingly severe environmental damage and the growing ecological issues that need attention from all parties. Second, it can be done by EFL teacher through: (a) fostering understanding and critical thinking through eco-friendly language learning material in all language skills; (b) raising students' awareness and feeling to take responsibility for protecting the environment; and (c) organizing to work together to preserve the environment. Third, as a result, it will equip learners with the skills to identify and take action against ecological problems. This article provides an overview of education study programs to develop such environment-based education in order to raise students' environmental awareness for sustainable development.

Keywords

Eco-friendly classroom, Language teaching, Sustainable community

Introduction

The current global environmental disaster affecting the planet's ecosystems requires immediate action from all sectors and disciplines, including English language teaching (ELT) [1], that must join in taking action to respond [2], [3]. Teachers need to raise students' awareness of environmental issues [4] and work toward finding solutions to grave concerns like resource depletion, pollution, desertification, and global warming [5]. Teachers need to raise students' awareness of environmental issues and work toward finding solutions to grave concerns like resource depletion, pollution,

Published:

October 20, 2024

This work is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/)

Selection and Peer-review under the responsibility of the 5th BIS-HSS 2023 Committee

desertification, and global warming [5]. By interacting and working together in their community and throughout the globe [6], it is crucial for enhancing learners' critical thinking (Metz, 2018) and problem-solving abilities [8], [9], as well as enabling them to function as effective agents capable of actively contributing to the preservation and enhancement of their environment [10].

In light of this, by 2025, the United Nations Educational, Scientific, and Cultural Organization (UNESCO) requests that all countries incorporate Environmental Education (EE) into their basic curricula in order to improve the world and save the environment for coming generations, everyone should possess the necessary information, abilities, and morals [11]. With recent research emphasizing the positive influence of environmentally focused education in English language teaching, it is obvious that this type of approach has enormous promise in developing environmentally conscious persons who are also able to speak English. Incorporating environmentally based education into the curriculum [12] can help students improve their critical and problem-solving skills [10]. Students who participate in environmental-based learning have the ability to understand environmental challenges in depth and offer new solutions [13]. Teachers can use this approach to increase students' understanding and engagement in global environmental issues by incorporating ecology-focused education into English language teaching [1], or by delivering specific writing and reading tasks related with eco-texts [11], [14]. Teachers can help form a generation that cares about the environment and wants to contribute positively to our ecosystem by taking this approach.

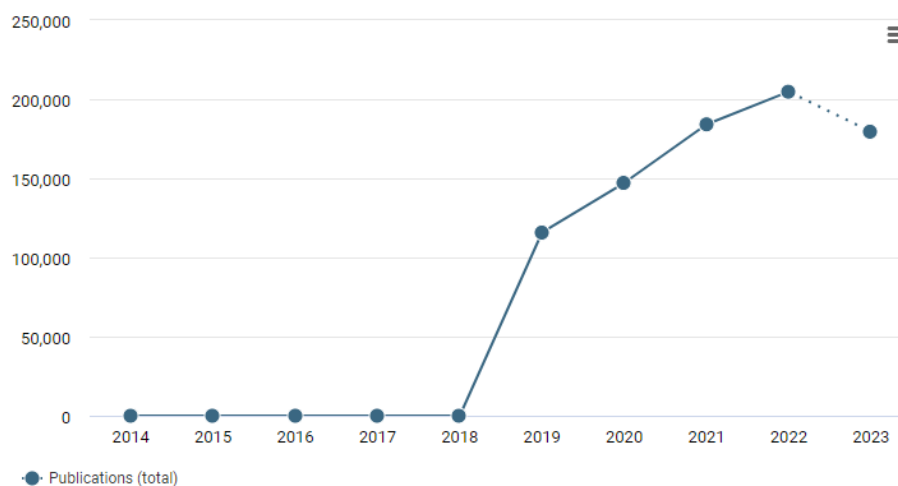


Figure 1. Publication trends during 2018-2023
source: analytical views of dimensions application

Moreover, using learning materials that focus on the environment can boost students' enthusiasm to learn languages. Teachers can create more relevant and meaningful learning experiences for students by introducing environmental content into the English curriculum [5], [15]. This will not only encourage students to learn English more enthusiastically, but will also contribute to their environmental awareness. Thus, incorporating environmentally based education into English language teaching not only

provides a classroom focused on sustainability [1], [16], but also encourages students' language growth while raising awareness of important environmental issues [17].

Research trends related to eco-ELT and environment-based education continue to show an increase from year to year. Figure 1 shows the enthusiasm and interest of researchers to write and publish on the theme, reaching 200,000 publications in the past year. For that reason, this study aimed at (1) exploring the importance of environmental education in ELT, (2) explaining the strategy for incorporating environmental education in ELT, and (3) finding the implications of this action.

Methods

This research combines literature studies in the form of (1) literature reviews, (2) data from twitter, and (3) theoretical studies (see Figure 2). The combination of three types of data with different analysis methods aims to ensure data reliability and validity. The reason for choosing twitter because this social media account is the highest microblogging sites that make it easy to report on various phenomena and interaction media globally so that the search for research data related to environment-based learning can be searched for data completely and efficiently. With the hashtag (#) feature to easily find the latest tweets related to what is conveyed by twitter users around the world and has active users that tend to be stable. There were 10 articles reviewed deeply to answer the research questions. To enrich the data, data from twitter social media of kementerian lingkungan hidup & kehutanan (environmental ministry) were used as a convincing reference source. Data analysis was carried out through three stages following the Miles and Huberman model namely data reduction, display, and verification. Research flow is drawn in Figure 2.

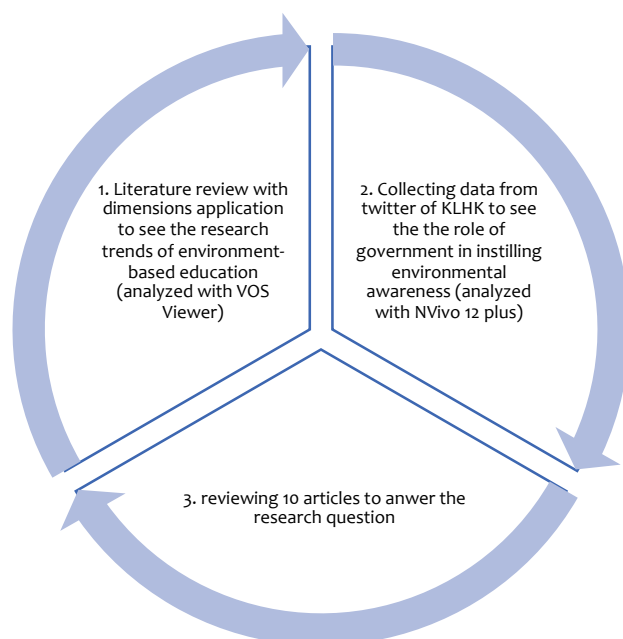


Figure 2. Research procedures

Results and Discussion

The Importance of Environmental Education in ELT

First, the finding from literature review revealed that incorporating environmental education into ELT is now considered very crucial, due to the increasingly severe environmental damage and the growing ecological issues that need attention from all parties. There were 831.226 publications during 5 years from 2019-2023 taken from dimensions database. This number shows the interest of researchers who realize how crucial environmental issues are to be introduced and integrated into various lessons in schools.

Figure 3 shows that the countries with the highest number of authors are from the United State, China, and the UK, followed by Canada, the Netherlands, Spain, and France. The data indicates that researchers and writers in Asian countries are still very few who are involved in researching and writing on issues related to environment-based education. Therefore, starting from the English class, teachers in Indonesia need to present students with environmental themes, such as global crisis, waste management, water saving, etc. Teaching EFL/ESL should go beyond simply helping students become more proficient in the language to include helping them develop critical thinking skills that are applicable to environmental sustainability. Additionally, the profession of teaching English can be used to encourage environmentally conscious behavior in the public, which will in turn activate an eco-applied linguistic awareness among EFL/ESL teachers [16].

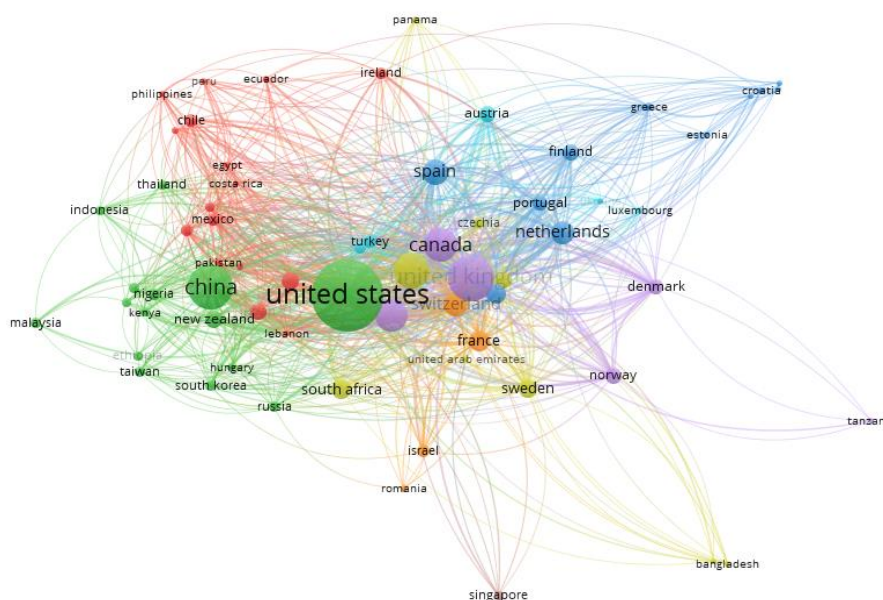


Figure 3. Authors and country during 2018-2023
source: analytical views of VOS Viewer application

The second data is sourced from the Ministry of Environment and Forestry's tweeter posts. Based on the data from the analysis of tweets from the Ministry of Environment & Forestry, it shows that all tweets are dominated by preserving the habitat of rare

animals protected by the state and several steps to protect the environment. This demonstrates the government's role in educating the public on issues related to saving the environment and animals (Figure 4). This is very important because the Ministry of Environment and Forestry is government agency whose main concern and task is related to the maintenance and preservation of the environment.

Actually, the Ministry of Environment and Forestry's strategic steps can be linked to the Ministry of Education, so that public awareness can be more structured through educational institutions. Some recommendations of previous studies show that it needs integration of environmental education and waste management activity in educational institutions done directly both in the learning process by the teacher or indirectly by an outside party [10]. By fostering environmental awareness from an early age, students will be formed into individuals who have concern for the surrounding and global environment, because today fewer and fewer people are aware of the destruction of the environment. The students will know how to manage waste if they are continuously taught and trained.

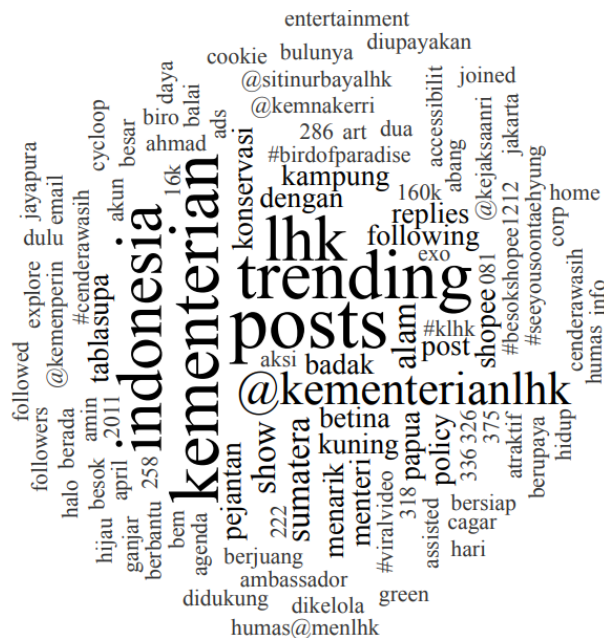


Figure 4. Authors keywords during 2018-2023
source: analytical views of Nvivo 12 plus application

Teachers' Strategy for Incorporating Environmental Education in ELT

Second, it can be done by EFL teacher through:

1. Fostering understanding and critical thinking through eco-friendly language learning material in all language skills;

The fundamental component of environmental education is environmental protection knowledge, which should be taught to students of all ages (in preschool, primary, secondary, post-secondary, or higher education levels. According to Nkwetisama (2011) the materials can be created by: (a) bringing in articles or audio/video recordings from newspapers, magazines, radio, TV channels, or the internet, (b) capturing and replaying

English music linked to environmental education, (c) making recommendations and engaging in debate on environmental education subjects pertaining to local happenings, (d) facilitating a debate and using writing skills to create questions for classmates on environmental topics, and following that, pupils complete a questionnaire pertaining to the objects' environmental friendliness.



Source en.wikipedia.org

Get Ready

Task 1. Discuss the following questions with your classmates.

Look at the photo. What do you see?

Do you think that you throw away too much trash in one day? Explain.

What does your city do with trash it collects?

Figure 5. The example of Eco-ELT materials

Moreover, it is suggested that environmental education be a regular and continuous component of the curriculum rather than something haphazardly added in once or twice a year.

2. Raising students' awareness and feeling to take responsibility for protecting the environment;

It is very important for teachers to instill in students the understanding that responsibility to participate in environmental protection does not only belong to the government and environmental activists but also to everyone live in this world. Raising students' awareness of environmental damage and the need to protect and preserve the environment can be done by involving students directly to feel the environmental damage. For example, by giving assignments and asking some questions, as follows.

It is almost impossible to avoid plastics today. They are used to package food, hold the water we drink, and make life more convenient. Now, look at the area around where you are sitting. What items do you see that contain plastic? Make a short list.

What problems arise from these plastic trashes?

What can you do with the trash?

Besides, since environmental issues like global warming and energy crises are fascinating, current, and contentious topics, incorporating environmental education

into English language instruction will undoubtedly help students develop their critical thinking skills and abilities while also advancing their language development (Figure 5). The ecological movement in ELT is vital to its success because it fosters a positive interaction between students and the natural world [17].

3. Organizing to work together to preserve the environment;

The tasks included in the students' materials must be made to resemble activities and tasks that they will encounter in the actual world. Instead of leading and controlling every learning activity, teachers should take on the role of facilitators in order to complete their duties. For instance, resources on planting trees or assignments that require every student nationwide to plant and care for a tree in their area for a predetermined period of time. The proverb "One generation plants tree, the next generation gets the shade" is something the teacher constantly bringing up to the class as they work.

Furthermore, evaluations must to be grounded on both the learning process and the final deliverables. Students must cooperate and work together in all areas of learning, including choosing and producing materials that are appropriate for their own learning, according to the learner-centered approach [16]. In line with this, the other study revealed that handling waste using the 3R principle not only instills awareness of the impact of waste pollution problems on students, but also trains real behavior in reducing household waste in everyday life [10].

The Implications of Incorporating Environmental Education in ELT

Third, the implication of integrating environment-based education:

1. It will equip learners with the skills to identify and take action against ecological problems. Within the scope of socially responsible teaching, educators have an equal obligation to contribute to improving the world. It is necessary to bring up environmental issues in the classroom in order to raise students' awareness and foster a caring attitude, both of which will ultimately make them active participants in finding solutions to the issues at hand [11].
2. It will raise students' critical thinking and their awareness as well. It may represent a key pathway to the development of the students' environmental green culture and green lifestyle as well as an effective booster to their critical thinking and problem-solving skills [5]
3. Starting from small things, this theme will lead students to understand bigger and global environmental issues. Global concerns are actual problems, such as the deforestation, acid rain, ozone depletion, nuclear waste disposal, and that. These difficulties may be partially handled if global issues were made the focal point of EFL [16].

Conclusion

This article provides an overview of education study programs to develop such environment-based education (in a level of secondary school or higher education) in order to raise students' environmental awareness for sustainable development. This study revealed that research on the integration of environment-based education, especially in ELT learning is very important as shown by the high and increasing interest of authors to produce publications related to this issue. In implementing this, teachers are required to develop ELT materials instilled with environment-based education, raising students' awareness to take responsibility and real action towards environment protection, and organizing to work together to preserve the environment. The limitation of the research is the small number of literatures reviewed. The next research can review more articles or conduct research and development for Eco-ELT materials and examine its implementation to promote students critical thinking skills.

Acknowledgments

This work was supported and funded by Universitas Muhammadiyah Ponorogo (UMPO).

References

- [1] E. Emilio and A. Betancourt, "Environmental education from English Language teaching," 2020. [Online]. Available: <https://www.researchgate.net/publication/345389774>
- [2] S. Nur, I. Anas, and R. Pilu, "The Call for Environmentally-Based Language Teaching and Green Pedagogy: Climate Actions in Language Education," *Elsya : Journal of English Language Studies*, vol. 4, no. 1, pp. 77–85, Apr. 2022, doi: 10.31849/elsya.v4i1.9526.
- [3] S. Stavreva Veselinovska and S. Kirova, *How to teach environmental education during efl/esl lessons?* 2018. [Online]. Available: <https://www.researchgate.net/publication/266402013>
- [4] R. P. Situmorang and S. D. Tarigan, "Cultivating students' environmental awareness by creating bottle garden in school: A qualitative study," *JPBI (Jurnal Pendidikan Biologi Indonesia)*, vol. 4, no. 3, pp. 263–270, Nov. 2018, doi: 10.22219/jpbi.v4i3.6785.
- [5] H. Laaloua and Y. Tamer, "Promoting Environmental Education in Moroccan High School ELT Textbooks," *International Journal of Language and Literary Studies*, vol. 4, no. 1, pp. 317–330, Mar. 2022, doi: 10.36892/ijlls.v4i1.860.
- [6] L. Gao, "Construction of English Learning Community in the Smart City Environment," in *Advances in Intelligent Systems and Computing*, 2021. doi: 10.1007/978-3-030-62746-1_82.
- [7] D. ERDEM METE, "Incorporating Environmental Education in English Language Teaching through Bloom's Revised Taxonomy," *Selçuk Üniversitesi Edebiyat Fakültesi Dergisi*, no. 40, pp. 33–44, Dec. 2018, doi: 10.21497/sefad.514847.
- [8] W. Astuti, A. Maghfiroh, R. Ekanti, and A. Palupi, "Enhancing Students' Writing Ability By Implementing Problem-Based Learning Method At The English Department Students In Muhammadiyah University Of Ponorogo In Academic Year 2019/2020," *Edupedia Journal Muhammadiyah University of Ponorogo*, vol. 4, no. 2, 2019.
- [9] R. Setyaningrum, N. R. Indriastuti, and S. Asiyah, "Improving Students' Reading Comprehension By Using Problem-Based Learning Method At XI MIPA 5 SMA Negeri 1 Badegan Ponorogo In Academic Year 2021/2022," *EDUPEDIA*, vol. 7, no. 1, 2023, doi: 10.24269/ed.v7i1.1518.
- [10] M. Nizaar, Sukirno, Djukri, S. Muhandini, and Mas'ad, "Improving students' environmental awareness using 3r principles," *Universal Journal of Educational Research*, vol. 8, no. 11B, pp. 6146–6151, Nov. 2020, doi: 10.13189/ujer.2020.082251.
- [11] L. Setyowati, S. Karmina, A. H. Sujiatmoko, and N. Ariani, "Feeling nature in writing: environmental education in the EFL writing course," *Journal on English as a Foreign Language*, vol. 12, no. 1, pp. 22–

- 48, Jan. 2022, doi: 10.23971/jefl.v12i1.3092.
- [12] “Environmental Education as infused in NCERT Syllabus For Classes I to XII As Per NCF 2005.”
- [13] D. Erdem Mete, “Incorporating Environmental Education in English Language Teaching through Bloom’s Revised Taxonomy,” *Selçuk Üniversitesi Edebiyat Fakültesi Dergisi*, no. 40, pp. 33–44, Dec. 2018, doi: 10.21497/sefad.514847.
- [14] E. Juan, S. Hurtado, R. Stephania, and B. Castro, “Environmental Awareness Through Writing Tasks To Learn.”
- [15] A. Ekayanti, A. Maghfiroh, and B. Y. Wulansari, “English Math For Young Learners Based on Nature (EMYLBON) sebagai Upaya Penguatan Kompetensi Guru,” *AMMA: Jurnal Pengabdian Masyarakat*, vol. 1, no. 08, 2022, [Online]. Available: <https://journal.mediapublikasi.id/index.php/amma>
- [16] C. M. Nkwetisama, “EFL/ESL and Environmental Education: Towards an Eco-Applied Linguistic Awareness in Cameroon,” *World Journal of Education*, vol. 1, no. 1, Apr. 2011, doi: 10.5430/wje.v1n1p110.
- [17] J. A. Saiful, “Eco-ELT for environmental research and praxis in ELT,” *Journal on English as a Foreign Language*, vol. 13, no. 2, pp. 373–398, Jul. 2023, doi: 10.23971/jefl.v13i2.6335.