

Building Global and Environmental Awareness: Integrating Sustainability Education in History Learning

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Abstract

Concerns over environmental conditions and social inequality are global issues that have been discussed in recent years. This discourse has encouraged the emergence of sustainable education studies as an approach for students to have the ability to answer global challenges. History learning has great potential to internalize the values of sustainable education by integrating it into the history class. This study aims to explain how history learning can be used to build global and environmental awareness in students. This paper is a qualitative study using the literature study method to examine the integration of sustainable education in history learning. The results of this study show that theoretically, the integration of sustainable education in history learning can be done by creating a sustainable education-based history learning management model and identifying historical event narratives contained in textbooks. This article offers recommendations for pedagogical practices of history learning integrated with sustainable education to be implemented in schools in Indonesia

Keywords: sustainable education, history learning, global awareness, environmental awareness

INTRODUCTION

In the last few decades, global issues have again been voiced loudly by academics, activists, and various other elements of society. The most dominant global issues discussed include social inequality, climate change, and environmental degradation. These three issues are not only experienced by one country but almost all countries so that they become a serious concern for experts, governments, and the world community in addressing these issues (Aditya, 2024; VOA Indonesia, 2023).

Social inequality is a condition in which access to resources, opportunities and basic rights differs among groups of individuals in society (Carter, 2021). This creates differences in income, education, health, employment and political participation. Social inequality is often linked to differences in social class, gender, ethnicity, religion and geographic location (Nazroo & Williams, 2006).

Various research results show that social inequality has shown the existence of injustice in society. For example, in the field of education, studies Wiborg & Grätz, (2022) explains that children from low-income family backgrounds tend to have lower academic achievement, while children from high-income family backgrounds tend to have better academic achievement. Apart from economic factors, education is also still overshadowed by racist practices, both directly and indirectly (Arneback & Jämte, 2022). On the other hand, in the economic sphere, accessibility to employment and income generation, where women, minorities and other vulnerable groups often experience barriers in accessing equal opportunities. As a study conducted by Blau & Kahn (2020) explains that gender discrimination in the world of work is still a major factor that causes the wage gap between men and women.

Another global issue of concern is climate change. In 2023, the Intergovernmental Panel on Climate Change (IPCC) reported that the Earth's average temperature has increased by approximately 1.1°C since pre-industrial times and is expected to continue to rise to 1.5°C in the next one to two decades (IPCC, 2023). Air pollution, especially greenhouse gas emissions

such as carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O), plays a significant role in global warming and climate change. Emissions of these gases cause a greenhouse effect that results in an increase in global temperatures (Filonchyk *et al.*, 2024). The rise in temperature will lead to extreme weather and rising sea levels, as well as loss of biodiversity. Another impact is the emergence of various disasters and crises that hit the world.

In 2021 Europe experienced flooding and one year later there was a heat wave in the United States (NASA, 2022). At the same time, the heatwave also spread across Asia causing extreme weather that reduced agricultural productivity. This happened in Indonesia where crop yields in some areas such as Central Java and West Java decreased by 10% during the dry season due to drought and extreme temperatures (Kementerian Pertanian Republik Indonesia, 2022).

In addition to earth-threatening climate change, environmental degradation also threatens the sustainability of nature. Adla *et al.*, (2022) defines environmental degradation as the process of deterioration of environmental quality due to human activities that cause damage to ecosystems, loss of biodiversity, and decline in ecosystem functions. This includes damage to land, water, air, and other natural resources, resulting in negative impacts on human life and other living things.

Study Curtis *et al.*, (2018) shows that approximately 27% of deforestation was done by humans between 2001 and 2015, affecting the balance of the ecosystem. In addition, environmental degradation is also caused by poor soil quality due to rampant urbanization (Wang *et al.*, 2020) and excessive use of pesticides that affect the level of soil fertility itself (Hossain *et al.*, 2022). This is consistent with the report FAO and ITPS (2015) which claims 33% of the earth's soil is degraded, affecting the food it produces.

Not only soil quality, water and air pollution also contribute to degrading environmental quality. Poor management of industrial wastes that are then discharged into rivers, lakes or the sea is one of the factors that cause water quality to decline (Ikhsan *et al.*, 2023). This results in ecosystem damage and health problems for people living in the vicinity (Azizullah *et al.*, 2021). Meanwhile, air pollution is characterized by industrial activities and the use of motor vehicles that have increased the levels of pollutants in the air. Air pollution causes long-term effects where in addition to affecting the climate, it also directly causes air pollution which results in various diseases in humans (LoPalo & Spears, 2022).

The global and environmental problems that occur are the result of human activities that pay little attention to social and environmental impacts. Social inequality arises from the construction of a social system that is not aligned with the principles of justice. Extreme climate change due to the influence of excessive use of carbon emission gases. Environmental degradation arises due to a lack of awareness of the sustainability of natural ecosystems.

In order for these global problems not to have an increasingly negative impact, it is necessary for the awareness of the world community, especially the younger generation as the future holders of civilization to be more concerned about global and environmental issues. Building awareness of global issues among the younger generation is very important to create a generation that is sensitive, responsible, and ready to face world challenges. One of the strategic steps to encourage awareness of the younger generation is through learning practices in education. A workable approach is to integrate the concept of sustainable education in school subjects.

UNESCO (2024) provides an explanation that sustainable education is a learning approach to provide students with knowledge, skills, values and abilities to overcome interrelated global challenges. Based on this definition, sustainable education can simply be interpreted as a learning approach to encourage student awareness in responding to the global challenges that are developing today. This approach can be applied through integration with subjects taught in classrooms.

Regarding the concepts offered by UNESCO, sustainable education is very relevant to science subjects. However, this does not mean the sustainable education approach cannot be integrated with social-humanities subjects. In fact, the field of social humanities has the advantage of holistically examining the relationship between human activities that encourage global problems and the impacts caused. One of the relevant social-humanities subjects to be integrated with the sustainable education approach is history.

Through learning history, students not only learn a series of past events, but also learn to analyze the long-term impact of human activities on ecosystems and society (Kartodirdjo, 1982). Therefore, theoretically, the sustainable education approach can basically be integrated in history subjects considering that the material can be drawn its significance to the present conditions (Seixas, 2017).

METHOD

The study of this paper is qualitative with a literature method to examine how the integration between the sustainable education approach and history learning. Through the literature method, the author can analyze the data obtained from various literature sources so as to produce a comprehensive study (Snyder, 2019). The sources used in this study are relevant research results from national and international journals, history textbooks, and history subject independent curriculum documents. The data sources were used by the author to formulate an integrated history learning model for sustainable education and identify relevant materials in history textbooks.

RESULTS AND DISCUSSION

In general, sustainable education is defined as a transformative approach that seeks to change the paradigm of education from learning knowledge to awareness to the practice of teachers and students in addressing the development of issues related to sustainable development. Sterling (2010) emphasizes that sustainable education is not just about adding global and environmental issues to the curriculum but a change in thinking that is more holistic, systemic and integrated. Therefore, sustainable education is not a branch of science or a stand-alone subject in the national curriculum, such as civic education (PKn), social science (IPS), or others. According to Sterling, sustainable education is a pedagogical approach internalized through learning relevant subjects. One of the social-humanities subjects that has a strategic position in internalizing sustainable education is the subject of history.

History Learning Management Integrated with Sustainable Education

The learning management model is a systematic conceptual framework used to plan, organize, direct, and control the learning process to create an effective and efficient learning environment. This management includes a series of strategies, procedures, and methods applied by teachers or facilitators to ensure that learning runs in accordance with predetermined goals

and meets the needs and characteristics of learners (Hattie, J., & Zierer, 2019). Therefore, the integrated learning management model of sustainable education is a learning management model in which history teachers can manage learning so that students can understand the relationship between past events and the discourse of global and environmental crises. The following are the stages of the history learning management model integrated with sustainable education.

1. Planning

In this planning stage, teachers must plan lessons that aim to synchronize global and environmental issues with history learning materials. The following planning steps can be taken.

a) Setting learning objectives

In setting learning objectives, teachers need to understand that students are directed to have the ability to identify and analyze the impact of historical events on sustainability and encourage students to have the ability to link past lessons with present challenges.

b) Integrate historical events and sustainability.

Teachers need historical event materials to direct students to global and environmental sustainability awareness. For this reason, the material used needs to be adjusted to the concept of sustainability. For example, the exploitation of natural resources during the colonial period and similar patterns today impact environmental sustainability.

c) Development of teaching materials

Teachers must develop teaching materials relevant to sustainability issues after choosing topics that will be integrated with sustainable education. The creation of this teaching material not only explains historical events that occurred but is also equipped with components that encourage students to have sustainability awareness. For example, it can be equipped with case studies, archives from primary sources, scientific articles, or relevant learning videos. In the Merdeka Curriculum implemented in Indonesia, this teaching material is prepared as a learning module.

2. Organizing

The organization of learning is carried out systematically, from the curriculum selection of learning methods to collaborating with external resources. Therefore, the characteristics of organizing history learning integrated with sustainable education need to be adjusted to sustainability issues.

a) Inclusive curriculum design

Curriculum inclusiveness is necessary to create fairness in learning. For example, the material taught is not only political history, which is full of political interests—glorifying specific periods of government and negating other governments. In learning history integrated with sustainable education, curriculum design must uphold equality and justice and encourage students to be aware of sustainable issues. Thus, students can see how past events affect present environmental and social conditions (Leicht et al., 2018).

b) Participatory learning model selection

In the Kurikulum Merdeka, high school students' learning models focus on student-centered approaches that encourage creativity, independence, and deep learning. Several models are recommended in the independent curriculum. Still, in the author's view, learning models that are suitable for applying the history learning model integrated with sustainable

education are Project-Based Learning, Inquiry-based learning, and problem-based learning. These learning models are relevant to sustainable education because teachers will more easily direct students to analyze and evaluate sustainability issues to encourage students' global and environmental awareness.

c) Collaboration with External Resources

In addition to learning in classrooms with teachers, schools or teachers must collaborate with external parties, be it environmental organizations, communities, or other educational institutions, to provide contextual learning experiences so that students are more aware of the growing sustainability issues.

3. Implementation

In the implementation stage, teachers entirely apply the lesson plans that have been designed. There are several methods that teachers can use to facilitate the integration of history learning with sustainable education.

a) Case studies of historical events as a foundation

In historical narratives, several events are relevant to sustainability issues, such as discrimination and exploitation of natural resources. These events can be a foundation for teachers to introduce to students that the crises that occur today have also occurred in the past. The impact and solutions carried out in the past can be used as discussion material relevant to the current situation.

b) Develop Critical and Reflective Thinking Skills

Critical and reflective thinking skills are needed for the 21st-century (Erdogan, 2019). Especially in the crisis discussed in sustainability issues, teachers need to develop students' thinking skills by directing students to be aware of global issues through integrated history learning in sustainable education.

4. Evaluation

Evaluation in history learning integrated with sustainable education measures not only the mastery of historical material but also the extent to which students can link history lessons with sustainability values. Here are some evaluations that history teachers can do.

a) Project and portfolio-based assessment

This assessment is done by centering students having a project related to the history and value of the sustainability (Olsson et al., 2016). This assessment can be done by asking students to analyze contemporaneous sources such as archives and newspapers related to the discourse on global and environmental issues or making learning videos related to this.

b) Reflection and class discussion

Self-reflection and class discussion aims to make students realize that past events will affect today's events. Through this effort, past events related to global and environmental issues can be reflected by students through discussions guided by the teacher. Students can express their opinions about the global topuk that occurred in the past with today's global and environmental problems.

c) Skills and Attitude Assessment

In addition to cognitive aspects, students' skills and attitudes towards global and environmental awareness also need to be assessed by teachers through observation. Teachers can observe students' skills and attitudes in learning activities. Through this effort, teachers can draw conclusions regarding the level of student response in addressing global and environmental issues.

Planning, organizing, implementing, and evaluating history learning integrated with sustainable education requires a holistic and contextual approach. By combining history materials and sustainability concepts and using active and participatory learning methods, students can develop a deeper understanding of the importance of sustainability and the role of history in shaping a better future.

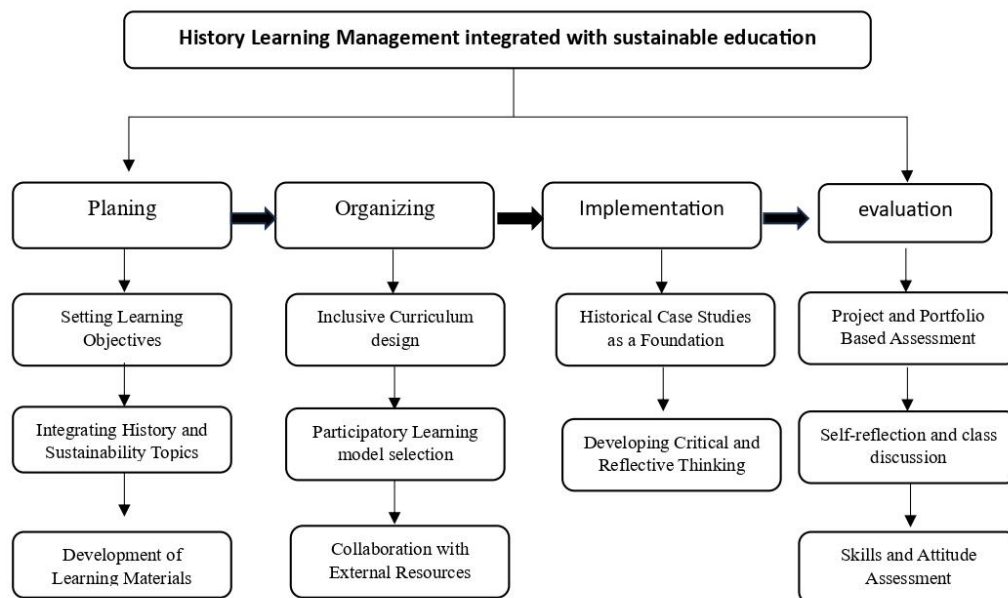


Figure 1 Conceptual framework of the integrated history learning management model of sustainable education

Identification of Historical Event Narratives Relevant to Sustainability Issues

Internalizing sustainable education in history learning is done by integrating both. This is possible because, in history subjects, students are expected to understand past events so that they can connect historical significance with the present context (Seixas, 2017). They are also directed to explore the development process of society and its culture over time.

Through learning history, students are expected to absorb historical values that can be used as learning for the present and the future. In other words, history education not only acts as a discipline that emphasizes strengthening the cognitive domain or knowledge transfer but must also function as a medium for value transfer. In addition, the development of current educational studies shows that the learning process is not just about seeking knowledge but also creating knowledge. Thus, learning history has two critical dimensions: to fulfill the needs of history as a science and as an educational instrument.

The process of integrating sustainable education in the narrative material of historical events can be adjusted to the relevant material. In the author's paradigm, three relevant materials can be integrated with sustainable education: the prehistoric period, European colonialism and Japanese occupation, and the post-independence-reform period.

1. Prehistoric Period

The prehistoric period can often be interpreted as a time when humans were not yet familiar with writing. Although often considered a period far removed from modern life, it holds many sustainability values that are relevant to the challenges of today's world. Prehistoric societies lived in close connection with nature, sustainability being an integral part of their daily lives. This is reflected in the narratives written in history textbooks where the lives of pre-literate people were very dependent on nature. Hunting and gathering as well as using tools sourced from nature were their ways to survive and adapt to their

environment. Three main values from prehistoric history that are still relevant for sustainability education are coexistence with nature, collectivity-based community.

2. European Colonialism and Japanese Occupation

The period of European colonialism and the Japanese occupation is a period in Indonesian history that also has relevance to global and environmental issues. In learning history in Indonesia, the material on the period of European colonialism and the Japanese occupation is taught in class XI Senior High School. The narrative is about the policies of the colonial government and the Japanese occupation that affected the social life of the Indonesian people and the environment.

During the Dutch, British and Japanese colonial administrations, they massively exploited natural resources, such as exploiting spices, mining products and plantation crops such as sugar cane, coffee and pepper. This massive exploitation policy led to environmental degradation (Nawiyanto, 2005). In addition, during the Japanese occupation, Indonesian crops were also used to finance the needs of the war against the Allied forces (Ricklefs, 2008). On the other hand, the policy also affected the social life of the Indonesian people. Many Indonesians suffered because of the forced labor system policy to build infrastructure for the benefit of the colonizers.

Social inequality, racism and discrimination were also conditions experienced by the Indonesian people during the colonial period. This was done so that the colonial government could control the native people. For example, during the colonial period there were social strata consisting of three groups. The first or upper class was Europeans or whites, the second or middle class was foreign easterners such as Arabs, Chinese and Indians, while the third or lower class was the native people. One of the impacts of discrimination from the division of these groups is access to education, where only the upper class or Europeans and local aristocrats (children of the native elite) get quality education in the land of the Dutch East Indies (Indonesia) while the small people have little opportunity to get quality education (Cribb, R; Brown, 1995).

The policies of the colonial or colonization period can be relatable to sustainable education. Exploitation of natural resources and social inequalities such as racism and discrimination are global issues of the past that can be taken as moral values for learning in the present. Remember, the environmental degradation that occurs today is also caused by the exploitation of natural resources with poor management. Social inequality in the world is also still found as a result of injustice.

Based on the relevance of the material taught, students are invited to understand that the utilization of natural resources must be done wisely in order to support economic and ecosystem sustainability. In addition, the value of social justice is very important. History teaches that sustainable development must be inclusive and equitable, ensuring that no party is disadvantaged or ignored in the development process (Huckle, J., & Wals, 2015). This helps students understand how to create a more just and sustainable world for future generations.

3. Post-Independence-Reformation Period

In the post-independence-reform period, Indonesia has fully become a nation free from foreign colonization. However, this does not mean that the life of the Indonesian people is fully prosperous. This happened because at that time the Indonesian people experienced various challenges in political, economic, social and other aspects. For this

reason, the historical period from post-independence to reform in Indonesia provides various important lessons related to sustainability values. These values include the value of resilience and adaptation to crisis, social justice, and natural resource management that can be internalized by students.

In the post-independence period, Indonesia faced various challenges that tested the nation's resilience and adaptability, such as economic crises, political conflicts, and social turmoil. One clear example is during the Old Order period, when Indonesia experienced an economic crisis due to very high inflation and political instability (Ricklefs, 2008). Despite facing a difficult situation, the Indonesian people were able to survive and adapt through various economic and social policies implemented by the government.

During the New Order period, the government focused on development with a centralized approach and modernization. Through these efforts, Indonesia's economic conditions in the early days of the New Order gradually recovered and the inflation rate as a legacy of the Old Order gradually decreased. However, at the end of the New Order era, Indonesia's economic condition again experienced a downturn, which was exacerbated by social inequality and the issue of human rights violations that prompted the reform movement.

Indonesia's history from post-independence to reformasi provides valuable lessons on resilience, social justice and natural resource management. These values are highly relevant in sustainability education, as they help students understand that sustainability is not just about the environment, but also about how to build a just, inclusive and resilient society.

CONCLUSION

The development of global and environmental issues also affects the world of education. This is because education is a strategic tool to encourage young people's awareness of international and ecological problems directly affecting their lives. For this reason, sustainable education can be used to create a generation that is sensitive and responsible for its natural and social environment. Sustainable education can be implemented through integration with the subjects taught at school. One of the relevant social-humanities subjects is history learning.

Through the integrated history learning management model of sustainable education, students can understand that past events are significant to the present, especially social and environmental crises. This is because history learning also examines the social and ecological dynamics of the past so that it can be used for present and future learning. Thus, students are encouraged to recognize moral, social, and ethical environmental responsibilities in the global and local scopes.

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