

**ECO-CULTURAL EDUCATION FOR LOWER SECONDARY STUDENTS
- A PERSPECTIVE FROM INTERDISCIPLINARY EDUCATION
(PRELIMINARY SURVEY BASED ON GRADE 6 LITERATURE TEXTBOOKS
FROM “CONNECTING KNOWLEDGE TO LIFE” SERIES)**

Nguyen Thi Minh Thuong

Faculty of Philology, Hanoi National University of Education

Abstract. As the deteriorating global ecological environment is affecting the long-term survival of humans, eco-cultural education for students is more urgent than ever. The article aims to study the interdisciplinary combination of literature and ecology for eco-cultural education at a lower secondary stage. From the basic knowledge of eco-culture, the article defines the goal, contents and methods of organizing eco-cultural education at lower secondary schools. The article also provides a preliminary assessment and survey of the integration of eco-cultural education into the teaching of Literature based on the Grade 6 Literature textbooks from the “Connecting Knowledge to Life” series.

Keywords: Interdisciplinary education, eco-culture, Grade 6 literature, Connecting Knowledge to Life.

1. Introduction

Interdisciplinary education and specialized education are not opposing, but instead mutually complementing each other. The article aims to study the interdisciplinary combination of literature and ecology for eco-cultural education at lower secondary stage, and guide the methods of organizing eco-cultural education at lower secondary schools, initially through the teaching of Literature. This is extremely necessary and important, as the deteriorating global ecological environment is affecting the long-term survival of humans, and eco-cultural education for students is more urgent than ever. To accomplish this goal, the article deploys interdisciplinary research methods, analysis, consolidation and comparison of relevant documents. The article presents the following main results: 1- Initial development of an overview of eco-culture: concept, basis for formation, and key characteristics; 2 - Goal, contents and methods of organizing eco-cultural education activities for lower secondary students; 3 - Through studying the Grade 6 Literature textbooks (from the “Connecting Knowledge to Life” series), the article presents a preliminary assessment of the ability to integrate eco-cultural education into the teaching of Literature. This study is meant to raise awareness and improve knowledge and skills on interdisciplinary education, specifically the interdisciplinary education of literature and ecology for teachers and college students majoring in teaching Literature, as well as to provide understanding and methods of eco-culture education at the lower secondary stage, thus contribute to protecting the environment and building eco-culture in the context of the country's socio-economic development towards sustainable development.

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Contact Nguyen Thi Minh Thuong, e-mail address: thuongntm@hnue.edu.vn

2. Content

2.1. Overview of Eco-culture

2.1.1. Concept of Eco-culture

Mankind has been through primitive society, agrarian society, industrial society and is now entering the era of post-industrial society. Along with the development of human society, culture is also developed to depict the essence of societies in human history. Corresponding to each civilized period of that history are primitive culture, agricultural culture, industrial culture and ecological culture (eco-culture).

In the time of primitive society and agricultural society, the trend of respecting nature basically did not over damage the ecological environment; back then, the ecosystem can be restored normally. However, at present, the population is growing rapidly, science and technology are constantly developing, natural resources are being overexploited, and environmental pollution induced by urbanization is exceeding nature's ability to self-regulate. This situation forces mankind to rethink their current way of world development, and that's how eco-culture is born. Rather, among many cultural trends, eco-culture is gradually becoming dominant.

There are currently no documents that specify the concept of eco-culture. From studying, consolidating and extracting a variety of sources [1, 2, 3], we define the concept of “eco-culture” as follow: “Eco-culture” is a portmanteau of “culture” and “ecology”. Eco-culture means all the material and mental values created by human in the process of understanding, adapting, applying and renovating nature towards the harmonious coexistence between man and nature, where both develop together.

2.1.2. Key characteristics of eco-culture

Eco-culture has the following key characteristics:

First, eco-culture respects nature and protects the environment. Eco-culture also pays attention to the development of material production in the process of natural rehabilitation and constant improvement of living standards; however, it especially asserts the use of natural advantages and rehabilitates nature on the basis of respecting and protecting natural environment. The process of pursuing eco-culture is one where man constantly perceives and adapts to nature as well as corrects his misconceptions and improves his relationship with nature. Addressing ecological risks is, after all, rethinking how people are behaving themselves, moderating the desires of humanity, seriously repositioning ourselves in the natural world and understanding that human is but an inseparable part of nature. Eco-culture reflects the idea that natural ecosystem is the foundation for the existence and development of mankind.

Second, eco-culture pursues the harmony and unity between man and nature. Eco-culture pursues the harmonious co-existence and co-development of man and nature: respect for nature, unity of heaven and man, unity of all things, etc. It is a thought that demonstrates the combination of human beauty and nature's beauty. The ethical standard that man and nature rely on each other to develop and live together is used to regulate human behaviors and build a suitable concept of value for the new era.

Third, eco-culture is complete and diverse. Eco-culture is inseparable from the existing cultural achievements; it emphasizes on respecting and protecting the diversity of living things on Earth; on the diverse survival of human, nature and society; on the equality between man and nature, as well as between living things; and on acknowledging the worth of every living thing on Earth. Diversity is the outward expression of the inner richness of the natural ecosystem in the relationship between man and nature.

Although diverse, eco-culture is still a unified body. Eco-culture consists of: eco-mental culture, eco-material culture and eco-institutional culture. Eco-mental culture refers to eco-culture in terms of the mind. It is a mix of different ecological concepts: ecological values, ecological reasoning and ecological ethics. It is the product of the mental activities of individuals and organizations; at a higher level, it consists of many factors such as knowledge of science, philosophy, literature, art, etc. Eco-material culture encourages mankind to actively eliminate production methods that cause environmental pollution and choose methods and techniques that are beneficial to our sustainable development, thus positioning ecological production as the main form of production. Eco-material culture aims towards green production, green packaging, green consumption, and tries to mitigate environmental pollution in production and daily life. Eco-institutional culture is a system of norms, laws and regulations created to form the view on ecological values, raise ecological consciousness and cultivate ecological psychology and behaviors. Eco-institutional culture consists of three layers: general eco-institutional culture, specific eco-institutional culture and eco-social norms. Institution effectiveness and mechanism completeness have great impacts on the development of material and mental culture in eco-culture.

2.2. Goal, contents and methods of organizing eco-cultural education for lower secondary students

2.2.1. Goal

The goal of eco-cultural education for lower secondary students is to cultivate people with eco-culture in the future. In particular, people with eco-cultural knowledge, who know to respect nature and pursue a life in harmony with nature; have ecological aesthetics; know to criticize actions that destroy the ecological environment, wasteful lifestyle that pursues material interests, and the insatiable exploitation of natural resources; know to apply and develop production technologies to minimize damages to the environment, to build works and landscapes that are in harmony with nature, to have an economical lifestyle, to place much value on mental values and to comply with legal regulations on protecting the ecological environment. On the basis of studying the essential characteristics of eco-culture, we believe that the goal of eco-cultural education for lower secondary students can be effectively accomplished through subjects such as Biology, Geography, History, Civil Education, Literature, Fine Arts, etc. as well as other educational activities.

2.2.2. Contents

To accomplish the goal stated above, eco-cultural education needs to construct its contents with specific requirements for learners as follows:

Table 1: Contents and requirements to be met of eco-cultural education

No.	General content	Requirements to be met
1	General issues of ecological environment	<ul style="list-style-type: none"> - Identify and distinguish the elements constituting the ecological environment, including natural factors (abiotic and biotic) and social factors (economic activities, daily life and culture of human). - Analyze the interactions, influences and interdependences among factors in the ecological environment. - Apply ecological principles (laws, biogeochemical processes, etc.) to explain a number of things and phenomena occurring in the environment. - Identify the factors that change or cause consequences to the

		<p>ecological environment.</p> <ul style="list-style-type: none"> - Research and analyze the issues posed for the ecological environment, such as: ozone hole, greenhouse effect, resource depletion, environmental pollution, population growth or aging, wasteful consumption, etc.
2	The relationship between human and ecological environment	<ul style="list-style-type: none"> - Identify and analyze the relationship between human and the ecological environment. - Assess the impacts of human on the ecological environment. - Assess the impacts of climate change, environmental pollution, loss of biodiversity, etc. on human's life and production.
3	Our actions	<ul style="list-style-type: none"> - Apply ecological principles to live in harmony with nature (green lifestyle, smart consumption, etc.) - Being conscious of and willing to participate in programs to spread knowledge of, care for and protect nature; oppose acts of encroachment into nature; - Being conscious of and willing to participate in programs about climate change and response to climate change; prevention of environmental pollution; biodiversity protection; protection of heritage sites and landscapes, etc. - Encourage relatives and friends to participate in activities to mitigate climate change, not to use items derived from the wildlife or rare creatures, to restore and protect scenic spots, etc.

In the curriculum of Grade 6 Literature (the “Connecting knowledge and life” series), there are many lessons that can be integrated with the above-mentioned eco-cultural educational content. With the general content issues of ecological environment, it is suitable for integration in lesson 9: *The Earth – Our common home*. The readings: *The Earth - the cradle of life* (Ho Thanh Trang), *How creatures on Earth are born* (Nguyen Dang Rieu) all give students vivid knowledge about the ecological environment. Through the lesson: *The Earth - the cradle of life*, students can understand why the earth is considered as a green planet, and on that green planet, how miraculously life began, position of all species and people on earth. The lesson: *How creatures on earth are born* (Nguyen Quang Rieu) provides knowledge of the formation of creatures on earth from tiny microorganisms. When teaching knowledge about the earth and these creatures, teachers can integrate it to teach the content of common problems of the ecological environment. With the content of the relationship between human and ecological environment, the “Connecting knowledge with life” series has many lessons which can be integrated with this content, such as: *If you want a friend* (excerpt from *Little Prince*, Antoine de Saint-Exupéry), *Friends* (Nguyen Nhat Anh), *Fairy tales of mankind* (Xuan Quynh), *Red-whiskered bulbul* (Mai Van Phan), *Co To* (Nguyen Tuan),.... The above lessons mainly emphasize on the harmonious relationship between humans and the natural environment, the respect of people for nature, and praise for the beauty of nature. The natural world in the above works is extremely beautiful, lively and soulful, close to humans. Through these lessons, teachers can foster the love for nature, build a right relationship, and harmonize with the ecological environment for students. For the content of our actions, the lessons *The Earth - the cradle of life* (Ho Thanh Trang), *The Earth* (Rasul Gamzatov) are suitable materials. Through these lessons, teachers can guide students to have sense of taking care of and protecting nature, protest abuse of nature, live in harmony and friendly to the environment.

2.2.3. Ability to integrate eco-cultural education into Literature

Literature is a subject well suited for integrating eco-cultural education. The subject is able to provide knowledge of many aspects of social life and the natural world, of the complex relationship between man and man, man and society, and man and nature. Literature educates people to be better, to know how to behave properly in social relationships as well as in the relationship with nature.

Educating eco-cultural values through Literature has its own strengths compared to other forms of education, i.e. education through the activity of appreciating and creating aesthetics. Therefore, the education activity takes place gently, gradually and profoundly. Literature satisfies the aesthetic needs of human by presenting the beauty in nature, society and behaviors, and by creating the beauty that needs to and should be. Of course, literature can write about the bad, the evil and taboos to criticize and eliminate them and help people head towards the good. Thus, it is possible to conduct education through good images such as examples and role models for students to follow, and also through those that are contrary to the ones mentioned above in an attempt to deter students from committing bad deeds. Through reading, comprehending, appreciating and creating literature, students will be able to absorb eco-cultural values. In reading comprehension activities, students can understand the values of the content and aesthetics of the literary work, thereby understanding the eco-cultural values hidden deep within. When instructing students to read and comprehend literary works, teachers need to link the work to eco-cultural values for students to receive knowledge about eco-culture and expand their understanding. Eco-cultural values help students establish their worldview and system of values, and are beneficial for them to know how to live in harmony with nature. This is also a way of expressing their sense of responsibility for the ecological environment.

Literature performs these functions through a world of concrete and vivid images that deeply affect human emotions and reason. Therefore, for education in general and eco-cultural education in particular, Literature has its own advantages over other subjects. For lower secondary students, it is necessary to develop both vivid visual thinking and abstract thinking, and the education of eco-cultural values through Literature has its own edge in doing this. In particular, the new education program in Vietnam places much value on experience, and Literature has proven its great advantages in this field.

2.2.4. Methods of organizing eco-cultural education at lower secondary schools

Eco-cultural education gives top priority to fostering awareness of sustainable and harmonious development, ecological safety, green technology, view on ecological values, ecological justice, ecological consumption, understanding of policies and laws on environmental protection, etc. Towards such educational contents, at lower secondary stage, eco-cultural education is carried out mainly through two main routes: First, integrating eco-cultural education into subjects such as Natural Sciences, History and Geography, Literature, Civil Education, Fine Arts, etc. Second, introducing students to eco-cultural education through educational activities, experiential activities, events on the environment, propagandas of ecological concepts and building ecological environment at the school's campus, etc. For eco-cultural education to be successful at the lower secondary schools, the schools and the teachers must pay special attention and attach importance to it, thereby choosing appropriate forms, methods and techniques of teaching to improve the quality of eco-cultural education for students.

a. Integrate eco-cultural education into subjects at lower secondary schools

Integrated teaching is an important orientation in modern teaching towards quality and capacity development of students. It is a teaching process where all learning activities contribute to the formation of clear competencies and anticipate things that are necessary for students in

order to serve the next learning processes and prepare them to enter working life. The basic goal of integrated teaching is to improve education quality in line with the comprehensive educational objectives of the school.

Contents of eco-cultural education can be integrated into subjects at different levels: full integration, partial integration, and relational integration.

Full integration: Full integration is achieved when most of the lesson provides eco-cultural knowledge. Then, the goal of the lesson is also the goal of eco-cultural education.

Partial integration: Partial integration is achieved when part of the lesson is about eco-culture. For example, when discussing the topic of “Living economically” in the civil education of grade 6, in order to fulfill the requirement that “Students are able to have actions and activities to demonstrate their economical lifestyle”, teachers can integrate the contents of eco-cultural education into the “Our actions” part to encourage students to protect and keep a balance of the ecological environment. For such lessons, teachers can also integrate eco-cultural education into some parts of the lesson. However, they need to distribute the time reasonably to fit the general lesson structure, and avoid overusing or teaching eco-cultural knowledge too much without paying attention to other contents of the lesson.

Relational integration: This level of integration is achieved when some contents of the subject is related to eco-cultural education, but not specified in the lesson. In this case, teachers must exploit knowledge of the subject and relate it to the contents of eco-culture. This level of integration can be applied to many different subjects and is commonly used to introduce eco-cultural education into the teaching of subjects.

b. Integration of eco-cultural education through experiential activities at lower secondary schools

Experiential activities are compulsory educational content at all educational stages in general and at the lower secondary stage in particular. There are similarities between the goals and contents of experiential educational activities and those of eco-cultural education.

The goal of experiential activities is to establish and develop the following main qualities in students: patriotism, kindness, honesty, diligence and responsibility; as well as the common capacities of self-control and self-study, communication and collaboration, problem solving and creativity, and the specific competencies of being able to adapt to changes, design and organize activities, and determine career orientation. The goal of eco-cultural education is to help learners gain the ability to regulate their behaviors and take concrete actions towards a lifestyle in harmony with nature where nature is respected. Eco-cultural education also aims to establish and develop students' attitude to respect the environment and have environmental protection actions, to practice healthy consumption patterns and to reach for harmony between immediate basic needs and long-term interests towards sustainable development.

It can be seen that eco-cultural education and experiential activities both direct students to respect and protect the environment. This is also for the goal of establishing and developing their patriotism and responsibility. A harmonious lifestyle with the sustainable and equitable use of natural resources, enhanced adaptability and preparation for the future is also a proof of problem-solving skills, creativity and ability to adapt to changes. In order to change the behaviors towards the ecological environment of learners, teachers need to design learning tasks that require communication, cooperation and planning, thus forming and developing the capacity to communicate and cooperate.

Educational contents in the experiential program need to include those about nature, and clearly state the requirements to be met in terms of understanding and protecting natural landscapes and the environment. These are also identified contents of eco-cultural education. Details are presented in the following table:

Table 2. Contents and requirements to be met of nature-oriented activities

Content	Activity	Requirements to be met
Activities towards nature	Learn about and protect natural landscapes	Discover the beauty and meaning of natural landscapes
		Participate in the conservation of natural landscapes
	Learn about and protect the environment	Learn about the current state of the environment
		Participate in environmental protection

Compared to other subjects in the 2018 General Education program, experiential activities prove to have a clear advantage in eco-cultural education. In addition to the goals and contents, the methods of organizing experiential activities, such as: discoverable method, interactive experimental method, dedicated method and researchable method are also favorable conditions to bring eco-cultural education to students. Therefore, implementing eco-cultural education through experiential activities is also an effective way which is encouraged to be applied at lower secondary schools.

2.3. Integration of eco-cultural education into Literature

The Literature curriculum of grade 6 is favorable for the integration of eco-cultural education. Those favorable conditions are summarized in the statistical table of “Addresses for integrating eco-cultural education”, which is compiled by surveying the Grade 6 Literature textbooks 1 and 2 [5] from the “Connecting Knowledge to Life” series. Our preliminary assessment of the level of integration is as follows:

Table 3. Table of addresses and assessment of level of integrating eco-cultural education into Grade 6 Literature (textbooks from the “Connecting Knowledge to Life” series)

No.	Address of integration (Topic/Lesson)	Content of eco-cultural education	Level of integration
1.	Lesson 1. Me and My Friends -The First Life Lesson (from <i>Adventures of a Cricket</i> by To Hoai) - If You Want a Friend (from <i>The Little Prince, Antoine de Saint-Exupéry</i>) - Friends (from <i>I am Beto</i> by Nguyen Nhat Anh)	- The natural world also has a soul like human being does. - There is empathy between man and nature. - The idea of the great harmony in a world shared by all living things. - The relationship between man and nature. - The appreciation for nature.	Relational
2.	Lesson 2. Knock on the Door of the Heart - The Fairytale of Humans (Xuan Quynh) - Clouds and Waves (Rabindranath Tagore)	- The harmonious relationship between man and nature, where nature is the poetic residence of human and the one to accompany human. - The appreciation for nature.	Relational
3.	Lesson 3. To Love and To Share	The harmonious relationship	Partial

	<ul style="list-style-type: none"> - The Crested Bulbul (Mai Van Phan) - Lucky is really lucky (from The Story of a Seagull and the Cat Who Taught Her to Fly by Luis Sepulveda) 	<ul style="list-style-type: none"> between man and nature. - Everything lives in harmony with each other in the natural world - The appreciation for nature. 	
1.	<p>Lesson 4. Beloved Homeland</p> <ul style="list-style-type: none"> - Vietnamese Bamboo (Thép Moi) - The Journey of the Bees (Nguyen Duc Mau) 	<ul style="list-style-type: none"> - The close-knitted relationship between man and nature. - The natural world has human characteristics. - The appreciation for nature. 	Partial
2.	<p>Lesson 5. The Roads of the Land</p> <ul style="list-style-type: none"> - Co To (by Nguyen Tuan) - The Swallow Cave (Ha My) - My Cuu Long River (by Nguyen Hong) 	<ul style="list-style-type: none"> - The beautiful nature is the source of life for human. - The love for nature. 	Partial
3.	<p>Lesson 7. The Fairytale World</p> <ul style="list-style-type: none"> - The Starfruit Tree 	<ul style="list-style-type: none"> - Nature helps human 	Relational
4.	<p>Lesson 9. Earth - Our Common Home</p> <ul style="list-style-type: none"> - Earth - The Cradle of Life (Ho Thanh Trang) - How Species Live Together (Ngoc Phu) - The Earth (Rasul Gamzatov) - How Creatures on Earth are Born (Nguyen Dang Rieu) 	<ul style="list-style-type: none"> - Understanding of the ecological environment. - Nature is the living environment of human. - The creatures on Earth live together harmoniously. - Value and protect natural environment. 	Partial

Example analysis:

When teaching the work *Co To* by Nguyen Tuan, teachers can integrate eco-cultural education into the lesson's contents. In reading and comprehending the text, teacher divides the class into 3 groups:

Group 1: Learn about the beauty of Co To nature. This group focus on answering the following question: In your opinion, in order to realize the beauty of Co To, the author has observed the natural scenery and activities of people on the island at what time and from where?

Group 2: Through the scene of people working, find out the attachment of human to nature. This group focus on answering the following question: How do you imagine the scenery of Co To without the description of the freshwater well and human activities around it?

Group 3: Learn about the feelings of the author for Co To. This group focus on answering the following question: Point out a sentence that expresses the author's special love for Co To in the paragraph starting from “*The fifth day on Co To Island ... to love the island as much as any fisherman who was born and raised along the waves here*” [5, 111].

In practice activities, the teacher guide students to apply related knowledge from the lesson to describe the beauty of Co To seascape, of the working people on the island, and the harmony of human life and the natural world. The contents of eco-cultural education are successfully integrated into the teaching activities. Through the lesson, students are more aware of the

splendid and otherworldly beauty of Co To, thus loving the working people on the island and appreciating the harmony between human life and nature more.

3. Conclusions

In the face of the worsening global ecosystem, our country has stepped up measures to protect the ecological environment. However, it is time to turn environmental protection into a way of life, a concept of value that is ingrained in the subconsciousness of each individual. Therefore, it is necessary to build eco-culture throughout the country. One of the effective ways to do that is to integrate eco-cultural education at all educational stages; in which, eco-cultural education at the lower secondary stage is extremely necessary. Eco-cultural education at secondary schools can be implemented through experiential activities and the teaching of subjects. The current general education program and especially the new education program are very favorable for the integration of eco-cultural education; in which, Literature has its own advantages. The eco-cultural education for lower secondary students needs to apply positive teaching methods and techniques, avoid coercion and ensure to preserve the characteristics of the subjects, especially those with specific characteristics like Literature.

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