



Integrating Ecological Lifestyle Education into Teaching Citizen Education at Secondary School in Vietnam - A Content Perspective

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ABSTRACT

Ecological lifestyle and ecological lifestyle education for students has recently been a concerned issue as unsustainable development leads to countless negative effects on the environment. Based on document analysis and theoretical framework, the author aims at generalizing several theories of ecological lifestyle, ecological lifestyle education and proposing certain contents of ecological lifestyle that can be integrated into teaching the Citizen Education subject at secondary schools in Vietnam for both the current curriculum and the new curriculum applied from 2018. The practical significance of this research paper is to propose teaching contents for integrating ecological lifestyle together with lists of textbook sessions suitable for integrating these contents in the current curriculum and the 2018 curriculum. These are valuable suggestions for teachers during organizing teaching activities.

1. INTRODUCTION

All humankind is facing an environmental crisis. Natural disasters, drought and flood appear more and more with increasingly serious level; many more land areas are extensively desertified; resources are exhausted; soil, water and air are polluted. These are caused by human's lifestyle, as mentioned by Ph. Angghen in "Dialectics of Nature", "we should not be too proud of our victory towards natural world because once we gain the victory, the nature takes revenge on us" (Marx & Engels, 1994, p. 654). Men are responsible for all these problems, "Today environmental problems have reached very important and serious levels. Destroyed nature and contaminated earth by people day to day reveals this reality in the best way. People are responsible for the creation of this negative picture." (Karatas, 2014). In Vietnam, for the past few years, environment has become an urgent problem. As a result, ecological lifestyle is determined to be one of the pivotal contents of the sustainable development that the whole world and Vietnam are heading towards. Ecological lifestyle education is the initial measure proposed during shaping ecological lifestyle. It is because changes in awareness are the fundamental basis for changes in behavior and "encourage changes in behavior will create a more sustainable future in terms of environmental integrity, economic viability, and a just society for present and future generations" (UNESCO, 2002, p. 1). Ecological lifestyle education can be implemented with a number of diverse paths, measures, ways and integration of ecological lifestyle education into levels of schools, associated with other major subjects. In school curriculum in Vietnam, the subject of Citizen Education at secondary schools is considered a major subject in which ecological lifestyle is integrated into teaching, contributing to raising awareness of human impacts on the environment with our own lifestyle. The awareness leads to changes in behavior, lifestyle, reducing negative effects on the environment. Therefore, integration of ecological lifestyle into teaching Citizen Education subject is an essential factor in current context. It is meaningful to conduct the research so as to investigate the contents of ecological lifestyle integration that are appropriate for each knowledge unit, each session in the subject syllabus.

2. LITERATURE REVIEW

Integrated teaching is a comprehensive human education that appeared in the Enlightenment Period (18th century) to go against the development without harmony and balance. It was developed through such works by Jean - Marie

D. Ketel and Xavier Roegiers in early 1980s. From the perspective of education, Xavier Roegiers believes that the crucial role of integrated teaching in comparison with other forms of teaching is developing learners' competences. Learners' comprehensive knowledge, skills and experience mobilization in learning situations lead to competence development. As a result, integrated teaching is a method to obtain educational objectives, considering learners' competence formation and development as targeted goal.

Theories and practices related to integrate teaching in schools were approved and united in a conference in Paris, France. The conference highlighted two issues namely why integrated teaching was carried out and what sciences integration were. Integrated teaching is defined by UNESCO as a way of presenting definitions and scientific principles which facilitates fundamental unity of scientific ideology, avoiding overemphasis or too early differentiation between different scientific fields. Nowadays, there appear three models of integrated teaching programs in the world, that is, interdisciplinary model, problem-based model and theme-based model (Lake, 2004).

Integrated teaching can be categorised as vertical integration and horizontal integration by educators. Vertical integration is "the kind of integration that based on the link of two or many subjects of the same field or near fields"; horizontal integration is "integration basing on linking learning, studying objects on different scientific fields" around the same topic (Bui Hien, 2001, pp. 384-385). Nguyen Huu Chau (2006) stated that integrated teaching is organizing, guiding students how to mobilize, recapitulate knowledge, skills of different fields in order to tackle learning duties; thereby shaping new knowledge, skills, developing essential competences, especially the competence of solving problems. Ngo Thi Ngoc Mai and Tran Trung Ninh (2014, p. 102) reported that, "integration is linking objects of teaching, learning in the same action plan to ensure unity, harmony, completion of the teaching system to obtain the most satisfying teaching and learning objectives". According to Do Huong Tra (2015), integration teaching is a pedagogical viewpoint in which learners need to mobilize power to handle a complicated problematic situation so as to develop personal ability and personality.

In the context that human beings are facing crisis caused by surroundings and disasters from their own lifestyle, theories of sustainable living, green lifestyle or ecological lifestyle and ecological lifestyle education have so far been discussed by researchers in the world and in Vietnam. "People need to be conscious about the environment more than anything else. In this respect, environmental ethics education will be able to guide them. The community members, becoming more conscious by environmental ethics education can question their relationship with the environment again and behave more environmentally friendly." (Karatas, 2014). By analyzing the environmental impacts of household consumption in terms of the material, water, and land usage requirements, as well as greenhouse gas (GHG) emissions, associated with the production and use of products and services consumed by these households, a few groups of authors pinpointed shaping sustainable life style, clarifying factors that determine ecological lifestyle and measures to develop ecological life style (Akenji et al, 2016, p. 3). United Nations Environment Programme (UNEP) issued "One Earth, Sustainable Lifestyles: Options and Opportunities" (UNEP, 2018, p. 6) to confirm measures to put sustainable lifestyle education into human daily life. Several studies focus on ecological lifestyle education with changes in personal behavior, proposing the model of education and learning environment. They also emphasize the role of education in the recovery, diversity of biology of the eco-system, "an environmental education programme in which learning is situated in civic ecology practices also has the potential to address both community and environmental goals", and "environmental education programmes may foster resilience in urban social-ecological systems, through enhancing biological diversity and ecosystem services, and through incorporating diverse forms of knowledge and participatory processes in resource management" (Krasny & Tidball, 2009).

By pointing out that in the near future "consumption patterns in the Asia and the Pacific region are changing rapidly - in the year 2000, the average person in Asia consumed 4.5 tonnes of materials every year. Fifteen years later, this has doubled to 9 tonnes per person", UNEP determined that, "for sustainable lifestyles to become a reality in Asia and the Pacific region, all stakeholders including policy makers, academia and the private sector must work hand in hand. Youth, as the leaders of the future, must be empowered and inspired to create a more sustainable pathway for the region." (UNEP, 2015). Tidball and Krasny (2010) in the work "Urban environmental education from a social-ecological perspective: conceptual framework for civic ecology education" focuses on environmental education programs that are nested within and linked to community-based stewardship or civic ecology practices".

In Vietnam, on October 17th 2001, the Prime Minister issued Decision 1363/QĐ-TTg on approving the project "Putting contents of environmental protection into the system of national education". Ecological lifestyle is the major content of environmental education; shaping ecological lifestyle is the ultimate target of environmental education.

Nguyen et al. (2019) in the paper titled “drivers of social media disengagement: a study of young consumers in Vietnam” highlighted the lifestyle of young Vietnamese consumers and its potential impacts on the environment among the students in Hanoi and Ho Chi Minh City. The project of Green Living investigated the situation of ecological lifestyle among various groups of people, with the emphasis on students; then recommendations of green behavior were introduced to these groups to protect the environment (Summary Report on Green Behavior Project of Vietnam Green Living Project, 2011). In terms of school curriculum, the majority of research papers focused on environmental education; while there are only limited papers directly addressing ecological lifestyle. Here are some examples: *Designing lecturers to exploit the content of environmental education in Geography textbooks at school* by Nguyen Thi Thu Hang and Doan Thi Thanh Phuong (2004), *Education of environment protection in Chemistry at school* by Phan Thi Lac et al. (2008), *Teaching with the integration of environmental education in the session Oil, Natural gases - Chemistry for 9th grade at secondary schools* by Pham Thi Quynh et al. (2016), *Training and raising awareness, knowledge, skills of environmental protection education for student-teachers at Hanoi National University of Education* (Faculties of Biology, Geography, Citizen Education) by Ngo Thi Hai Yen (2016), *Integration of environmental education in teaching the subject Citizen Education at High School* by Pham Viet Thang (2017).

Deriving from the existing literature research, it can be seen that, in Vietnam, most works focus on environment and environmental education; while there witnessed a limited number of specific research papers on ecological lifestyle in teaching and learning in general and citizen education in particular.

3. RESEARCH METHODS AND RESULTS

3.1. Ecological lifestyle and ecological lifestyle education

3.1.1. Ecological lifestyle

Definition

Ecological lifestyle is a comparatively new term. Mentioned in international studies, ecological lifestyle, sustainable lifestyle and green life style are interpreted with similar meanings. In 1987, the viewpoint on “sustainable development” was presented by the World Environment and Development Council led by the President – Norwegian Prime Minister G. H. Brundowlan: Current generations need to fulfil their demand so as not to harm the ability of future generations to fulfil theirs by asserting that, “if our lifestyles shape our behavioural patterns, then from a sustainability perspective, lifestyles also define our footprint. Everyone has a responsibility to deliver a better human society and a better planet to future generations”. Akenji et al (2016, p. 3) claimed that, “a “sustainable lifestyle” is a cluster of habits and patterns of behaviour embedded in a society and facilitated by institutions, norms and infrastructures that frame individual choices, in order to minimize the use of natural resources and generation of wastes, while supporting fairness and prosperity for all”.

According to William (2018), “sustainability implies living well more equitably within the means of nature. Thus “sustainable lifestyle” implies any pattern of individual consumption and social behaviors that could be shared by everyone while still maintaining ecological integrity; it is facilitated by institutions, social norms and infrastructures that frame individual choices and actions while remaining that the aggregate rates of biophysical resource use and waste generation are within the regenerative and assimilative capacities of ecosystems”.

The UN Environment Program - UNEP defines that “Sustainable lifestyles is a way of life that is achieved by both effective infrastructure, services, products and actions, personal choices to minimize using natural resources, reducing emissions, waste and pollution while promoting equitable socio-economic development for all and preserving the earth’s life support system within the planet’s ecological tolerance” (UNEP, 2018, p. 6).

The Center for Community and Environmental Initiative Development (C&E) illustrates that: “ecological lifestyles as understood as ways of living, a set of daily activities in a balanced/ healthy way and close to nature, taking into account the reduction of negative impacts on the environment, the reduction of consumption of natural resources and the minimization of emissions of pollution and waste into the environment, an environmentally friendly way of life, but still meeting the needs of human life”(C&E, 2015, p. 11).

Hence, when discussing definition of ecological lifestyle, the majority of research papers focus on daily human behavior and habits in order to minimize bad impacts on natural environment.

As far as this research concerns, “ecological lifestyle” is defined as way of life in which daily human activities are friendly, close to nature, minimizing natural resources consumption and negative effects on the environment. This lifestyle is environmentally friendly; however, it still ensures human daily needs, contributing to sustainable development.

Heading for an ecological lifestyle means changing our way of thinking, acting in life, from shopping to consuming, working, learning, playing, entertaining, etc. Ecological lifestyle is the key to tackling environmental issues that the world is facing.

- *Attributes of ecological lifestyle:*

+ The lifestyle that reduces negative impacts on the environment (making use of friendly materials and means including wood, bamboo, glass, paper, bicycle, no trash litter, etc.);

+ The lifestyle that reduces natural resources consumption (avoiding wasting resources, no indiscriminate resources exploitation, saving resources appropriately, etc.).

Several topics for ecological lifestyle discussion can be mentioned including water, energy, trash, food, traffic, architecture, tourism, entertainment, etc.

3.1.2. Ecological lifestyle education

“In order to solve environmental problems, first and foremost, people should be educated about environmental protection and improvement” (Karatas, 2014). It is because “the difficulty in changing our detrimental habits stems from the fact that identities in our societies are bound up with consumerist practices. Because we cannot simply give up practices that shape our identity, environmental education has to find ways of substituting unhealthy habits with environmentally acceptable ones” (Grušovnik & Arzenšek, 2014).

Therefore, the issue of ecological lifestyle education for learners is extremely crucial. It can be said that ecological lifestyle education is the process that through educational activities, learners obtain true understanding, positive attitude and the competence of practicing the lifestyle of minimizing natural resources consumption and negative effects on nature, positively contributing to handling global challenges.

UNEP proposes collaboration of elements to reinforce ecological lifestyle in which education is emphasized, as behavior-oriented education, especially behavior of the young - those who are representatives for the humankind's future.

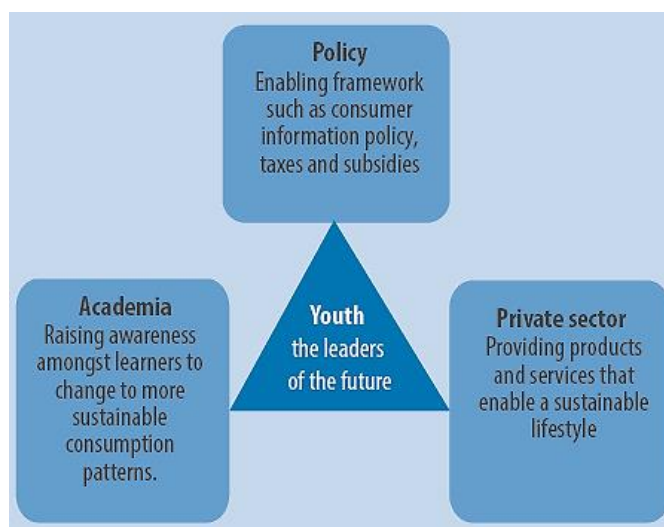


Figure 1. Partnership–Collaboration of elements that reinforce ecological life style (UNEP, 2015)

3.2. Ecological lifestyle contents to integrate in the subject of Citizen Education at secondary schools

Unlike other subjects, Citizen Education is the subject directly providing students with moral knowledge and lessons which are in line with the ethical standards of the society, responsibilities and duties of citizens. As a result, this subject integrates countless essential educational contents for life including ecological lifestyle.

Ecological lifestyle integration into Citizen Education subject is considered as a voluntary and systematic combination of knowledge related to ecological lifestyle and knowledge of the subject to make a united and closely-associated form based on certain principles.

Integration of ecological lifestyle into the subject Citizen Education can be divided into 2 forms:

- Integrated form: Knowledge of ecological life style education is included in the textbooks;

- Adapted form: Knowledge of ecological life style education is not available in textbooks; however, based on the lessons, teachers are capable of appropriately adding related ecological lifestyle knowledge to the lesson during class lectures.

Below is the recommended contents of ecological lifestyle which can be integrated into the subject of Citizen Education at secondary schools for current Citizen Education curriculum and the 2018 curriculum. These contents of ecological lifestyle education are relatively diverse. The suggested content table shows attributes of ecological lifestyle with suggested behaviour to facilitate teachers – readers to easily choose knowledge for integration.

In order to facilitate regular integration of ecological lifestyle in teaching the subject, as well as increasing teachers’ flexibility to select educational contents appropriate with specific subject matters of local areas and circumstantial factors, an indexing table which lists the specific sessions suggested for integration is also provided.

Table 1. Suggested ecological lifestyle contents to integrate in teaching Citizen Education subject at secondary schools in current curriculum and 2018 school curriculum

Topic	Lifestyle minimizing negative impacts on the environment	Lifestyle minimizing energy consumption
Water	<ul style="list-style-type: none"> - Not discharging toxic waste water directly into the environment. - Equipping system of leaching toxic waste water and chemicals. ... 	<ul style="list-style-type: none"> - Frequently testing water pipes. - Using appropriate amount of water for washing clothes with the amount of clothing. - Locking the water tap after brushing teeth, washing face and hands. - Using showers instead of bathtubs. - Recycling water used for washing vegetables or rice for watering plants. - Recycling water used for washing hands the final time for washing vehicles or cleaning, etc.
Energy		<ul style="list-style-type: none"> - Lighting: Making use of natural light. Just lighting necessary areas. Prioritizing natural light. Prioritizing LED or compact lights. - Air conditioner: Setting the temperature above 26 degree Celcius in summer. Maintaining the air conditioner periodically. - Using the fridge smartly: not leaving the fridge open for too long. Not setting the temperature too low. Cleaning the fridge frequently. Arranging the space inside the fridge appropriately. Not putting hot objects in the fridge, etc. - Limiting usage of electrical appliances in peak hours. - Buying appliances with energy saving label. Frequently maintaining electrical appliances.
Shopping	<ul style="list-style-type: none"> - Refusing to receive plastic bags from vendors whenever possible. - Bringing cloth bags or personal rucksacks to carry dry things and boxes to contain wet things when shopping. - Limiting usage of bottled water, disposable plastic bottles. - Buying environmentally friendly appliances saving energy from natural sources. 	<ul style="list-style-type: none"> - Shopping moderately. - Using green products with green label or environmentally friendly products. - Buying products which can be used for long-term purposes in sufficient number. - Considering buying products made from recycled materials to support, assist recycling market. - Buying used yet well-functioned products. - Prioritizing environmentally friendly products from natural sources.
Food	<ul style="list-style-type: none"> - Reading labels of products and choosing the ones with transparent origins or organic labelled. - Buying local food as it is transported for shorter distances, experiencing 	<ul style="list-style-type: none"> - Making a list of food to buy and cook to avoid waste. - Buying/Using products made from recycled paper.

	<p>lower risk of using preservatives and cutting expenses.</p> <ul style="list-style-type: none"> - Buying seasonal food. - Limiting to use canned, pre-processed or frozen food. - Limiting packaging when shopping, preserving food. - Trying to have a vegetarian diet, eating scientifically and cutting down on the intake of meat. 	<ul style="list-style-type: none"> - Using paper of low index (thin paper with low level of white) when possible. - Home-growing food: plant crops at home using compost from kitchen trash such as leftovers and rotten flowers. - Share eatable leftovers to the disadvantaged people.
Rubbish	<ul style="list-style-type: none"> - For organic trash: Composting organic fertilizer for pet feeding and planting. - For inorganic trash: Refusing to receive plastic bags when shopping; reusing bags when possible; using ecological bags/ baskets when going to the market; not littering. 	<ul style="list-style-type: none"> - Recycling organic materials such as paper, bottles, cans, etc. to make new and creative objects. - Buying/ Using products made from recycled materials. - Arranging and categorizing organic materials to donate or sell to recycling shops. - Managing to fix broken objects instead of buying new ones.
Traffic	<ul style="list-style-type: none"> - Frequently maintaining vehicles 	<ul style="list-style-type: none"> -Prioritizing bicycles, walking or public means of transport for daily travel. -Maintaining vehicles frequently. -Avoiding travelling in rush hours.
Entertainment	<ul style="list-style-type: none"> - Prioritizing playing sports without engines (environmentally friendly and little carbon emission). - Selecting ecological destinations and services on holiday. 	<ul style="list-style-type: none"> - Reducing the time for watching TV, using computers or electrical appliances for entertainment.

Table 2. List of sessions for integrating ecological lifestyle contents in teaching Citizen Education subject in the current curriculum

Grade	Integrated Session	Integrated Content
6	Session 3. Saving	The behaviour that reduces natural resources consumption: saving water, energy, food, shopping, etc.
	Session 7. Being in love and harmony with the nature	<ul style="list-style-type: none"> - The behaviour that reduces negative impacts on the environment related to trash, traffic, etc. - The behaviour that reduces natural resources consumption: saving water, energy, food, shopping, etc.
	Session10: Being active, voluntary in collective and social activities.	The behaviour that reduces negative impacts on environment related to trash, traffic, and entertainment, etc.
7	Session 1: Simple living	The behaviour that reduces natural resources consumption related to shopping, etc.
	Session 14: Protecting environment and natural resources	<ul style="list-style-type: none"> - The behaviour that reduces negative impacts on environment: related to trash, traffic, etc. - The behaviour that reduces natural resources consumption: saving water, energy, food, shopping, etc.
8	Session 7: Actively participating in political-social activities	- The behaviour that reduces negative impacts on environment related to trash, traffic, etc.

	Session 9: Contributing to building cultural lifestyle in residential community	- The behaviour that reduces negative impacts on environment related to trash, traffic, etc.
9	Session 6: Cooperating for mutual development	- The behaviour that reduces negative impacts on environment related to trash, traffic, etc.
	Session 11: Citizens' responsibilities in the career of the country's industrialization and modernization	- The behaviour that reduces negative impacts on environment related to trash, traffic, etc.

Table 3. List of sessions for integrating ecological lifestyle contents in teaching Citizen Education subject in 2018 curriculum

Grade	Integrated session	Integrated content
6	Topic: Coping with dangerous situations	- The behaviour that reduces negative impacts on environment related to trash, traffic, etc. - The behaviour that reduces natural resources consumption: saving water, energy, food, shopping, etc.
	Topic: Saving	- The behaviour that reduces natural resources consumption: saving water, energy, food, shopping, etc.
8	Topic: Making a spending plan	- The behaviour that reduces natural resources consumption: saving water, energy, food, shopping, etc.
	Topic: Protecting environment and natural resources	- The behaviour that reduces negative impacts on environment related to trash, energy, shopping, etc. - The behaviour that reduces natural resources consumption: saving water, energy, food, shopping, etc.
9	Topic: Actively participating in community activities	- The behaviour that reduces negative impacts on environment related to trash, traffic, etc.
	Topic: Intelligent consumption	- The behaviour that reduces natural resources consumption: saving water, energy, food, shopping, etc.

Teachers need to be flexible to choose contents of ecological lifestyle to integrate into units of knowledge associated with each session, each topic. Integration need to ensures the objectives of the subject, lesson; be suitable with local areas and students; be closely relatable to urgent issues of the humankind and nation, local areas and the learners themselves...

4. DISCUSSION AND CONCLUSION

Ecological lifestyle is one of the factors determining the development of the humankind in general and Vietnam in particular. Therefore, all stakeholders including schools and teachers need to join hands to make ecological lifestyle widely known, turning it into reality with specific actions, activities and daily habits. Contents of ecological lifestyle education associated with above mentioned sessions, topics are suggestions for teachers to integrate ecological lifestyle education in teaching the subject of Citizen Education in the current curriculum and the 2018 curriculum. Ecological lifestyle is expressed in men's behavior connected with daily living, consumption, resources usage, etc. It is manifested through reducing negative impacts on environment and natural resources consumption. This research paper merely focuses on contents of ecological lifestyle and addresses integrating this lifestyle in teaching the subject Citizen Education. This issue needs to be further studied from the perspective of the principles and pedagogical requirements during integration and appropriate integration measures.

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