



# Enhancing Ecological Education in Argumentative Essay through Critical Thinking Skills

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## Abstract

The issue of ecological education in argumentative essay writing with critical thinking skills is interesting to discuss. The future challenge dealing with ecological education in teaching English should be enhanced as the effort to build the ecological awareness inserted in their writing. This study aimed to enhance ecological education in the argumentative essay through critical thinking to the students. The approach and method used in this study are qualitative-descriptive. The subject of the research is the students of junior high schools near river and wetlands. The instrument used is a questionnaire sheet; the data gotten from the questionnaire sheet is coded manually and the analysis is content analysis. The study result shows that the learners enhanced with ecological education have an awareness of their environment and they get easier to write their argumentative essay because the issue is close to them. Their linguistic competence is trained because they are able to use the vocabulary well. The learners have a wide knowledge of what to write and discuss in their writing activities. What happens in their environment becomes the material to narrate and it is the main part of ecological education contribution in their argumentative essay writing.

**Keywords:** ecological education; argumentative essay; critical thinking skills

**Introduction**

Talking about English subject should be connected to the other elements of education as the effort to produce the students with a variety of value of life and one of it is ecological education. It is important to say that ecological education can be stated as the paradigm that enhances the students with how they have empathy for their environment. Empathy means the sensitivity to the ability to be familiar with the surrounding. What happens to their environment becomes their focus in study. Therefore, ecological education always deals with building awareness happening to the surrounding. What should be remembered here is that ecological education teaches the students to behave ecologically, interact with nature well, and treat nature as a friend. There is no torture done to nature. When nature is the potential to be broken, the human being has to help nature to be green, healthy, and live as the living nature completing the human being's life. In ecological education, there are values of life in which the human being are the sparring partner towards nature. Naturalizing nature is the need for the human being to make everything run well.

Because ecological education relates to maintaining the life of nature balancedly, it is necessary to say that human beings should be able to take the role of keeper of nature. Ecological education is the study that delivers the narration of nature to remember, to study, and to keep as the effort of sustainable life. Ecological education enhances the students on how they should speak, act, and give behavior to their surrounding. As an effort to create students with strong character, ecological education has the position to make the students aware of what to do and what to think. Becoming students with ecological education character is the process of making them know and familiar with the local identity. Ecological education processes the students to respect what happens in their surrounding. It is important to say that having ecological education in their character as the local identity aims to direct the students better and guided in their life. As a result, their life and morality are in line with appreciating their surrounding. It is important to remember that ecological education relating to the surrounding is the activity to know all sides of life, starting from the river, clean surrounding, fresh air, etc. This awareness can be achieved while all of us have the same perception about the importance of keeping the environment itself.

Nuyen (2008: 194) says ecological education deals with the harmony to nature which is social harmony. In ecological education, there are three elements correlated with each other. The first is the teaching of and learning about ecological problems and issues. The second one is the inculcation in the learner appropriate attitudes and practices, such as respect for nature, and so forth. The third one is the teaching of concepts and ideas or thinking. It helps set ecological goals and supports good ecological practices (Nuyen, 2008: 187). It is important to note that having the ecological education concept and practice influences the students' view in thinking.

The literacy ability in searching all sources of damaged environment is the keyword that drives the students or us to move forward for better life and

environment. The ability to find out the problems of the bad environment should be had as the effort to increase and develop the awareness skills to interact. It means that empathy is the main part to bring out the best practice of treating nature. Therefore, the ecological understanding dealing with ecological education in the context of the students is needed to form. The students should be able to be presented with the ecological approaches to know better and closer to their environment so that they become habituated with the ecological life. As the effort to make the students get accustomed to ecological education, teaching them through English lesson is the way to do it. In conducting this, they will get two points. The first one deals with the ecological education itself as the knowledge imprinting in their life and character; the second one is dealing with the students' ability to use English in narrating their feelings and understandings about ecological education. It means that English is the media for the students to make them proficient to use their linguistic competence in articulating their ecological education knowledge. English is not only talking about the students' success in using English but also helps the students to know better the ecological education in their life of daily activities.

Because English deals with the skills either in speaking, writing, reading, and listening, this language has a strong impact to form students with the ability of language well. Learning a language cannot be lost from the knowledge that should be integrated into their understanding and action of their lives. It means that each student should be able to use English not only as the language goal itself but also to deliver what happens and are important to inform others. Therefore, English here is meant as a tool for communicating the knowledge the students have. When English has the function of a communication tool, it is important to say that ecological education can be narrated and articulated through English. It is the advantage that brings benefits to students in two aspects that can be collaborated with each other. English in the context of ecological education is guided to help the students in implementing English functioning knowledge.

The consideration why the students need to use English in the importance of ecological education is that the global challenge in the future requires the students to be familiar with English as the international communication, and in the other side, the students remember and maintain the local identity. Ecological education as the local identity in which the students live and interact should be maintained and delivered to all audiences. When ecological education is enhanced through English subject, it means that the students are involved in the global era but do not leave the local identity. The change is required and needed to answer the social dynamic; however, the students always tie their identity to the local identity so that the spirit to hand and embrace the local spirit is with their hand. The students are obliged to be a part of the dynamic, change, and advanced as the future generation but they should hold the local identity by maintaining local identity. When ecological education is the basic knowledge they have, it shows that the students always remember where they come from.

While the students have knowledge about ecological education and

competence in English, they can write their knowledge in an essay. Writing the ecological education issue needs the ability to write, the ability to analyze, give perspective, and give judgment needed in that context of the issue. It means that enhancing ecological education issues in an argumentative essay is a must for the students so that they can build a framework of mind, besides the width of knowledge in the perspective of ecological education. Therefore, writing the argumentative essay dealing with ecological education issues should start with the students' competence in writing the introductory paragraph on how they arrange their ideas in the general and thesis statement, followed by the essay body to give argumentation, and a concluding paragraph for the last point. Writing the argumentative essay dealing with the ecological education issue needs the width of knowledge and the students' practice in writing itself as the goal and target. It is impossible to be able to write while the students only have the knowledge of ecological education, but they never practice writing an argumentative essay. The students' ability to think and get the issue critically is needed to make them open. Again it should be said that the students' ability in thinking critically is helpful to learning the ecological education issues used in their writing activities. Therefore, it is important to say that enhancing ecological education for students through critical writing is a must so that the students can be close to their close environment. The critical thinking used in their writing activities in getting the issue should be defined as the effort to read the reality, analyze it, give meanings and perspectives, and take the conclusion from their analysis.

The students' knowledge determines how they can take the role of change in education. More knowledge they learn and have, the students will get the power to engineer life. Enhancing ecological education to students is part of enriching them to have the knowledge. Foucault (2002) says that knowledge is power. By having the power, the students can discuss reality using the knowledge they have. It also happens to the students of the English Department in which the richness of ecological education knowledge to English contributes toward the students' ability in their English itself. In one side, they are alert in English language skills; in the other side, they use their English skills for discussing the relevant issue to social life. It is very interesting and adds to the students' view; helps the teacher guide the students better in English communication. The knowledge of ecological education inserted in English skills makes the students have a different experience in learning English. It means that the knowledge of ecological education learned by the students brings out the new change in the learning process of understanding reality.

Understanding the ecological education issues in English by writing means that the students are expected to analyze, and give meanings and interpretations. What happens can be written and it is the thought product conducted from the ecological education issues. When the students have the ability in processing the ecological education issues well, it is the way for them to learn a lot about ecological education through English in writing. Teaching ecological education through English in writing is an interesting issue in order to enhance the issue to the students closer and closer.

The students' sensitivity to ecological education issues in English through writing gets the additional advantage in which the students obtain multi-sensitivity. Therefore, it is important to say that ecological education issues should be meant as the material to discuss in the students' writing. It means that writing the ecological education issues in their writing opens a new perspective and understanding on which they should position their way of thinking. It is the learning process that guides the students to be able to think about what to write and how to discuss their issues dealing with ecological education issues. The interesting one to note in this context is that to be able to write dealing with the issue chosen requires the ability to absorb the knowledge as much as possible, to manage and analyze it in order to be the material to write in their writing.

Stelma et al. (2015: 16) say that ecological thinking in TESOL has been shaped by the broad environmental picture in which the students interact, live, and do the life process. The activities in their environment deliver a variety of meanings and interpretations of the ecology and this condition supports the students in writing because they are rich in knowledge. The rich knowledge is modal for the students in their writing activities. (Mercer, 2021: 21) also says that ELT got serious about well-being, understanding what it means for all members of our community, and how we can all take action at different levels of the ecology in different domains to define and create well-being not only for individuals but for the collective. It means that the ecological knowledge the students have drives them to narrate their ideas fluently and in a better manner.

To help the students' ability in writing their ideas dealing with the ecological education issues in their writing activities, they need to learn and practice writing. Because writing itself is the process of narrating the ideas from the abstract to concrete, their ability to write should be taught and practiced. In writing itself, there is the step from the beginning to the end, such as writing the introductory paragraph, essay body, and concluding paragraph. As an effort for them to teach in giving argumentation or counter-argumentation in their writing activities, they should learn the genre of the essay, namely argumentative essay which trains the students to present their ideas from the introductory paragraph consisting of the general and thesis statement. In argumentative essay writing, the students' ability to write essays on real-life problems from the current issues is needed so that they can discuss the differing viewpoints about a specific issue. In the argumentative essay, it is a challenging communication task that needs sophisticated cognitive and linguistic abilities (Vögelin et al., 2020: 2; Tomak, 2021: 1-2). Rusfandi (2015: 2), Kılıç et al. (2016: 107), Latifi et al. (2021: 769), and Southworth (2021: 1) say that argumentative essay writing needs solid argumentation and reasoning strategies. It means the students' issues on ecological education in the introductory paragraph should be presented interestingly in order to make the readers interested to read (Fung & Mei, 2015: 214; Sujito & Muttaqien, 2016: 157). After writing the introductory paragraph, it should be followed by the essay body in which the students present their argumentation or counter-argumentation supported by the

data or the reasons. The concluding paragraph is the last part the students write in their essay to give the judgment or evaluation.

Therefore, the ecological education issues that are written in the argumentative essay is an interesting pattern to produce the students with critical thinking. It means that critical thinking skills help the students in analyzing the issue. It attends to help the students in making analysis, synthesis, and reflection based on the issue done (Chason et al., 2017: 9). As the effort to make critical thinking goes well with the goal, the implementation of critical thinking skills deals with the effective domain, including inquisitiveness, systematicity, analyticity, truth-seeking, open-mindedness, self-confidence, and maturity (Pei et al., 2017: 31). Again it should be said that critical thinking is an exploration of and exposition (Khunaifi, 2015: 46). Lu & Xie (2019: 969) then says that critical thinking enables people to perceive and reflect on information and facts critically when they face challenges. Ps et al. (2016: 298-299), Lin (2018: 19) and Widyastuti (2018: 183) add the view of critical thinking as the construct of thinking way to enable the learners to gather relevant knowledge and thoughts, add personal understanding and values, and select and integrate useful information, become more able to construct new knowledge to produce the meaning. It means that critical thinking drives the learners in a long process of thinking requiring them to be able to be open-minded to all realities to process as the data and it creates the judgment or evaluation.

This issue is interesting by considering today and future need that the students should be familiar with English and also use their local identity to keep their environment. The local issue about ecological education is important to study. This issue is challenging to research because producing students with the ability to use good linguistic competence and rich knowledge in ecological education become the goal in 21 first century. This study aims to dig into the teacher's and the students' views about ecological education. After getting their views, these become the best practice that can be used in writing an argumentative essay.

## **Method**

This research is based on the qualitative approach in which the data gotten are coming from the questionnaires distributed to participants. In the qualitative approach, the research principle is that the data were obtained from the phenomena happening. The research method used is descriptive which functions to narrate all findings from the phenomena (Akker et al., 2013). The research sample is the teachers teaching and students learning at schools near river or wetlands and it aims to find out their views about ecological education inserted in an argumentative essay through critical thinking. The technique sample used is a purposive sample because it is intended to catch out the teachers' perspectives and the students' perspectives in the schools near the river or wetlands. The instrument used is a questionnaire sheet aiming to dig the teachers' views. From the data collected, it is coded in order to make the data systematic and order (Wicks, 2017). In coding, the data were ordered based on the teachers' perspective. After the data were coded, they were

analyzed through content analysis based on the research problem proposed (Krippendorff, 2004). In content analysis, the data were interpreted, meant, and narrated through words and sentences that represent the teachers' perspective dealing with ecological education in argumentative essay through critical thinking skills.

## Results

Table 1. Teacher's View on Ecological Education as Wetland Character through English Teaching

No	Wetland Indicator	Wetland Character Indicator	Wetland Character Indicator in Education	Wetland Character Indicator in English Learning	Wetland Linguistic Competence Indicator in Argumentative Essay through Critical Thinking
1.	Everything that is in areas of swamp, brackish, peat land, and natural or man-made waters with stagnant or flowing water in the form of fresh, brackish, or salt water, including the sea which is not more than six meters deep at low tide	<ul style="list-style-type: none"> <li>➤ Big river</li> <li>➤ Small river</li> <li>➤ Wetland</li> <li>➤ Stage house</li> <li>➤ Floating market</li> </ul>	<ul style="list-style-type: none"> <li>➤ Wetland environmental consciousness</li> </ul>	<ul style="list-style-type: none"> <li>➤ Keeping environment</li> <li>➤ Keeping river environment</li> <li>➤ Keeping river</li> <li>➤ Enhancing wetland</li> <li>➤ Enhancing floating market</li> <li>➤ Enhancing wooden boat</li> <li>➤ Be familiar with river life</li> <li>➤ Building consciousness toward river life</li> </ul>	<ul style="list-style-type: none"> <li>➤ Writing the experiences in a written text about the importance of keeping the environment</li> <li>➤ Discussing the experiences by giving data and fact</li> <li>➤ Discussing the experiences by data and facts through critical thinking skills</li> <li>➤ Proposing argumentation and counter-argumentation in their written text</li> </ul>

Becoming a source and purifier of water, protecting	➤ Strong in keeping the environment	➤ Building persistence toward the principle	➤ Writing the view of life principle to keep clean and kept environment
2. against disasters, store of carbon, and a place for biodiversity to live	➤ Keeper		

Table 1 illustrates that the teachers had the tendency to view ecological commitment important to conduct. The existence of the ecological view needed to be responded to as an effort to build ecological life. The teachers teaching near the river or wetland actually defined every life river and environment as living creatures that should be appreciated. It means that the teachers pushed the teaching-learning activities in the class live because of the ecological atmosphere. While the students learn English in class, it should be enhanced. The way of enhancing was through writing the argumentative essay with critical thinking. Enhancing ecological education in an argumentative essay was meant as an effort to create high-order thinking skills because the students were required to narrate what they had seen in a written text. In writing their argumentative essay, they started to write about environmental conditions happening by discussing the experiences by giving data and facts through critical thinking skills and proposing argumentation and counter-argumentation in their written text.

Besides that, ecological education taught and delivered in the class also could be enriched with the material on the importance of keeping the environment. While they wrote their argumentative essay, the students started to discuss the issue of view of life principle to keep a clean and kept environment. Their linguistic competence in writing the argumentative essay related to the importance of ecological education in English writing. As a result, they had good competence in ecological education linguistic competence. They knew what to write, knew what to think, and knew what should be thought with critical thinking so that they could analyze with deep discussion in their argumentative essay.

Table 2. Student's View on River Enhancing Strategy through English Learning

No	Enhancing dirty and clean river	Studying environment in Theory and Practice	Strategy and material to create conscious ecological	Developing Linguistic Competence Indicator in Argumentative Essay through Critical
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			Thinking
1.	Importance to differentiate the dirty and clean river	Going to the river together to differentiate the dirty and clean river Visiting the river to get knowledge about the importance of keeping the river	The teacher and students go to the river to visit the river  Delivering the knowledge about the importance of keeping the environment clean
2.	Importance to create ecological consciousness	Visiting the river to get knowledge about the importance of keeping the river and ecological responsibility	
3.	Importance to build clean life	Visiting the river to create consciousness towards the environment and keep it	Material on river and ecology
4.	Seeing the environment directly	Visiting the river to study the river and its ecology	Material on ecology consciousness  Visiting the river to get knowledge about the importance of a clean environment
5.	Importance to know the dirty river		

Table 2 shows the students' responses about the importance of learning ecological education. By learning ecological education, it created the students' consciousness that this knowledge was important to have in which the students view the ecology as the substance of life to conduct. Enhancing ecological education by writing it in an argumentative essay helped the students to have high sensitivity to the environment. In order to make the students familiar with ecological education, the students could learn by visiting the river or the wetland as the subject to learn. To

enrich their linguistic competence, they should write what they see in their surrounding.

The students' ability to write their experiences in their argumentative essay writing was the step to go forward to be better in training the students' linguistic competence. To have good linguistic competence in a written text needed openness and sensitivity to their surrounding. In order to make them deep in their analysis while writing their argumentative essay, the students needed to think critically because it was helpful to sharpen the students' minds or logic in giving their perspective or view. The critical thinking skills inserted in writing the argumentative essay became the main indicator to strengthen the students' good linguistic competence.

### **Discussion**

Writing the issues of ecological education (Karatekin & Uysal, 2018: 82-83) in an argumentative essay is interesting and necessary to conduct (Sackey & Devoss, 2011; Françoise Besson, 2019; Mohamed Rubiaee et al., 2019). It is the effort to prove that writing is the social act in which the writing activities describe the social process (Henry & Austin, 2021). The social participation to discuss the issues of ecological education needs to be launched so that the writing activities have a social contribution. Every writing activity seen from the social movement is the result of social participation in which the writers attend to answer and give perspectives to the readers. The existence of argumentative essay writing discussing ecological education means that it is the real participation to enlight. Therefore, the learners who have the ecological education perspective in their mind while writing show a high social awareness of the importance of writing the ecological issues.

The critical thinking skills as the analysis knife in discussing the ecological issues determine the path of discussion, enrich the learners' tool in giving analysis (Padmanabha, 2018). The learners are required to be able to position their critical thinking skills as the main part to write their argumentative essay writing (Wu, 2021). With critical thinking skills, the learners have been sharp and keen while talking about the issue. The students' linguistic competence is better and better because they have been familiar with what to write. As a result, the linguistic competence that is trained through critical thinking skills in their argumentative essay shows the writing result high impact.

The ecological education (Nuyen, 2008) that is discussed through critical thinking skills in their argumentative essay writing sound good and meaningful. The learners in their argumentative essay writing are able to give good and keen analysis because they are ready and complete with good knowledge. Their writing ability in starting to write in their introductory paragraph consisting of general and thesis statement focus on what to write is based on the selected issue with complete knowledge (Alotaibi, 2014; Hajeid, 2018). Their analysis in general and thesis statement is based on the ecological education issues relevant and support the thesis. The ability to write in the introductory paragraph about ecological education issues,

consequently, determines the next step in writing the essay body.

The learners in writing their argumentation or counter-argumentation while being in their essay body will be richer, multiperspective, and multi-data relevant to support their ideas (Afantenos & Asher, 2014; Rusfandi, 2015; Rapanta, 2019). Therefore, the learners work on their writing task of fulfilling all elements of the essay body strong and stronger. It is expected that there is an effort to build the whole perspective about the importance of ecological education in their environment as an effort to keep the surrounding safe and good. The students' understanding of the ecological education they have got shapes their paradigm of writing their essay body firm in their position on what to say in their writing.

### **Conclusion**

The ecological education taught to the learners through writing activities with critical thinking has the role to build their ecological education perspective so that they become those who care about their environment. The students' knowledge they write shapes their identities as the persons who have the awareness. By writing their knowledge in an argumentative essay, it trains and habituates to have the positive habit of what to do for their environment. Besides the linguistics competence they are accustomed to, they also bring a change in their mind and perspective in which the critical thinking skills form their mindset. Therefore, the linguistic competence is better and better, especially in how they arrange their language vocabulary used, their language use, and their logic framework.

### **Suggestion**

It is important to note that those who learn to write their argumentative essay on the issues of ecological education through critical thinking skills will be open-minded and know their environmental issues. The teachers at schools near river or wetlands are suggested to teach their students about the issues of ecological education as an effort to make them familiar with the close and closest problems. By having to interact with their environment, they actually learn to write from their surrounding selves. Closing the students to their real-life in their own environment and taking them to think also to reflect on what happened in their environment as the issues to learn and discuss is the manifestation of enhancing ecological education. Hopefully, this study can be the reference for the next research relevant to ecological education in writing argumentative essay through critical thinking skills.

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