Improving Students' Critical Thinking on Environment Through Creative Writing Class Applying Project-Based Learning Approach

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ABSTRACT
The issue regarding the existing condition of our environment has become more intense to be criticized at any level of society, including scholars. It has become a multidisciplinary topic that is not related to biological students or conservationists only as the entire people worldwide are responsible for this earth's condition. Students in university also grasp an important role in the environment and ignorance is not compromised, no matter what subject they are studying, even for English Literature students. In literature itself, as proof of the importance of environmental and ecological issues, students are acknowledged by the ecocriticism theory which intertwines literature, biology, and the environment in the same state. Even though it has its own obstacles in triggering the issue of the environment for English literature students, it is important and worth trying. Through this study, using a project-based learning approach which lets the researcher help and assist the students to expand and elaborate their way of thinking resulting in the form of creative writings, students are triggered by their own close surroundings, vehicles, and knowledge of how far they could imagine the degradation caused by their own daily acts and how severe the impact really takes. The outcome of this study varies based on the student’s background. Those who are originally from villages and coastal areas could imagine vividly the degradation that happened or the worst that might happen sooner or later, while those who live in the urban areas struggle to find out the severe impact more than pollution in their writings.

Keywords: environment, ecocriticism, English literature student, creative writing.

1. Introduction
It is not a hoax nor a hearsay that human life now is facing global warming with several bad impacts on the following conditions such as pollution, temperature rise, and degradation of natural resources. People are starting to be exhausted and restless with the weather and season shifting, moreover with the scary idea of climate change. Haribhai and Vyas (2019) have stated how the environment become a burning issue because of its degradation and depletion which could lead us to impending doom and how Environment Day is nothing more than a celebration without concrete action. Most people are sinking into the discussion within their own realm. Especially for literature students who are falling deeply into structuralism, psychoanalysis, and modernism, but failed to think right through their closest surroundings. When tracking back the history of English Literature, Bards have sung for nature since the first time and the greatest poets such as Wordsworth and Hardy have delivered the
amusement and criticism of nature through their works. All of the nature-based literary works ended as consumption for those who need amusement or healing. Practitioners and students of literature tend to isolate their discussion from environmental concerns and choose to put personal interest regarding the issue, above public needs. It is believed that biological and cultural evolution are not independent affairs but interrelated with each other affecting human behavior (Love, 2003). In order to lead the students out of their isolation, it needs the practitioners or in this case, the lecturers to trigger and improve their critical thinking regarding the environment through the subject in the classroom activity.

One of the subjects chosen by the researcher to be the means of improving their capability to think critically regarding environmental issues in literary works is the creative writing class. Creative writing is well-known as one of the methods that serves the approach to develop and improve critical thinking. Edberg (2018) also emphasized that through creative writing the writer, who could be a professional or student, is learning along their writing process. It is not a hidden issue anymore that a number of university students lack of critical thinking skills as they are pushed to think of theories that are far away from their acknowledge than to try to understand issues and theories that are applicable and close to their daily lives in the beginning. In higher education, especially in the English Department, creative writing becomes one permanent subject in the curriculum that allows students to work and analyze each other’s work instead of famous works (Earnshaw, 2014) to poke and trigger students’ critical thinking (Condon & Kelly-Riley, 2004). In another way, creative writing has also been known as the means for personal development and improvement. Through creative writing, people not only need to surpass critical thinking (Duron, Limbach, and Waugh, 2006), but also develop ideas, schemes, and at most points, control emotions. In practice, triggering students’ critical thinking is not as convenient as giving them a task to submit before the next meeting. It needs regular trial and practice to assist them in thinking beyond the given issue. In order to overcome such a matter, the researcher decided to investigate how the creative writing subject could improve the student's critical thinking using the project-based learning approach that could be the way to assist students to be more considerate of their environment by means of creative writing.

2. Methods

This study used the qualitative methodology as the means to analyze the results of the study. This study also used the Project-Based Learning approach, which allows students to engage with real problems regarding the environment and gain a deeper understanding of their surroundings, discuss and challenge their own ideas, and improve their critical thinking towards the creative writing process. As the class began with the problem of environmental degradation instead of general content, Pither and Soden (2000) also stated that it can be the best way to develop the students’ critical thinking. The study was conducted in the odd class of the fifth-semester students of the English Literature Study Program at Halu Oleo University, in 2022. The study was carried out on the Creative Writing Subject from the first to the seventh meeting.
The technique of the project-based learning approach in the classroom is divided into several following steps;

1. The lecturer as facilitator started with a driving question regarding the environmental problems that the students could think and feel about. In this study, the driving question is what and how the effect of vehicles on the environment degradation.
2. The students then explore the question through their simple experience followed by the research regarding environmental degradation affected by vehicles.
3. The students and lecturer engage in active discussion regarding their ideas and research, to see how far the students could catch up with the effect of the vehicles as the means to trigger students’ critical thinking.
4. The students engage with the writing process which is commented on and revised in the weekly meeting
5. The students finalized their writings as their final product and explained the theme related to the environment
6. The lecturer gave the final driving question regarding their new perspective on environmental degradation.

In the end, the researcher summarized the learning process by analyzing the seven meeting processes, the final version of the writing, and comparing the idea before and after the writing process began.

3. Result

Through the seven meetings in the creative writing class, as the critical thinking process, thirty-six of the English Literature students have followed the process of generating ideas and the writing process with four times revisions and the final meeting to challenge their improvement of critical thinking on environmental degradation. In the beginning, the students are given the driving question that later becomes the main theme for their writing projects. The question is “What and how is the effect of vehicles on environmental degradation?” The average idea regarding the question is only covering three effects as followed by the graphic below.

![Graphic 1. The first idea of the effects of vehicles on environmental degradation](image)

The final version of the creative writing shows that three ideas of effects in the first version of writing become eight in the final version. Through critical discussion,
challenging ideas of each other, and literature research, the ideas of environmental degradation expand into not only air pollution, oil and plastic waste, but also forest degradation, marine pollution, animal extinction, soil degradation, and food security as described through the following graphic.

![Students' Final Idea on Environmental Degradation Caused by Vehicles](image)

Graphic 2. The final idea of the effects of vehicles on environmental degradation

Following the graphic above, it shows clearly that 25% of students came up and ended with the idea of forest degradation in general. Specifically, it is divided into various causes such as road, nickel mining, and massive forest degradation by big trucks and excavators for housing and plantations. Another surprising idea is the marine pollution that came up from the students who are originally from coastal areas that experience marine pollution by nickel mining to get the raw material for iron making as the basic element in vehicle body making, as well as the food security that became risky as the farming field has shifted into the mining field.

4. Discussion

Through the project-based learning approach in the creative writing class, the critical thinking of students is triggered in several ways, starting with the driving question in the first meeting. It is clear that most students are struggling to find another effect of vehicles on the environment but air pollution. As stated before, university students are lacking in critical thinking as it is hard for them to think broadly and beyond. They tend to think faster but simple things and fail to think the complicated ones. To overcome this, they need to be assisted through several intense meetings to guide their opinion in the classroom activities. Open discussion in classroom activities becomes one of the essential means to improve the student’s critical thinking as it is also believed to develop higher-order cognitive skills (Hansen and Salemi, 2012). The first meeting ended with independent research on how vehicles are made and the framework of critical writing. In the second meeting, the ideas are starting to expand a bit. Some of the students are coming up with the idea of forest degradation to build the road as the number of vehicles increases. In this second meeting, the researcher as the lecturer or facilitator in the creative writing class
engages in an active yet critical discussion with several triggered questions to help and assist the students to think broadly and beyond. The triggered questions such as “What do you think is the essential element in the body making for vehicles such as cars and motorcycles?” or “Where do you think you can get the raw material of steel in order to build the body of a motorcycle?” Such triggered questions, in fact, are helpful in poking the critical thinking of the students that makes them think and rethink again. Well-organized and related questions that lead to the root proofs could improve the critical thinking of the students, along with the open discussion.

For example, in order to be able to answer the triggered question number two regarding the raw material of iron as the basic element in vehicle body making, the entire students in the class need to open their search engine to find out where this raw material comes from (Hadjerrouit, 2011). For English Literature students, it is confirmed that indeed they are playing along inside their own isolation with literary works and social theories but never far enough to get off to learn other things such as environment and general knowledge such as the raw material of steel. Hence, after finding out the raw material, entire students in the class gave the same response of both shocked and amazed by their new kind of information and knowledge and started to link and rethink the mining activities in Southeast Province, or even in their districts. Following their new findings, the class then covered an open discussion regarding the mining activities that some of the students had witnessed. Taylor (2002) also states that in a case like this, the role of the lecturer as the researcher is also important to gain all the questions, both the typical and critical from the students and to lead the discussion in a safe yet supportive atmosphere where the students can deliver their own thoughts and judgment.

In the third to sixth meeting, the students are starting to work on their creative writing based on the environmental degradation theme given by the researcher. Some of them are making poems, some of them are short stories for children, and a few of them are making opinions. Through creative writing, students are learning to develop their ability to make their own judgments and perform their own opinions by adopting the rules in educational practices (Edberg, 2018). The form of creative writing may vary and it depends on the student's interest and passion. Through these four meetings of writing revision, students are learning to work based on the project given including the deadline and theme. Through the process, students experience learning in an authentic situation along the several corrections and revisions, delivering ideas, making explanations, and elaborations. In conducting the writing process, in order to enhance the critical thinking of the students, the process follows the guide by Paul and Elder (2007) which the revision involves several logical steps in the writing's improvement starting with; 1) Clarity to illustrate the idea and meaning, 2) Accuracy to check and verify the information, 3) Precision to give more detail or exact, 4) Relevance to relating the idea with the main issue or theme or problem given, 5) Depth to elaborate the complexities of the issue given, 6) Breadth to see or compare with another perspective, 7) Logic to ensure that each paragraph or element in the writing is fit and related each other, 8) Significance to ensure the important of the writing or message that needs to be delivered by, and 9) Fairness to avoid the subjective perspective.
The benefit of this process is that the students also learn to value the meaning of the given task and their performance. It is also strengthened by Bean (2011) that writing is one of the best ways to improve students' critical thinking (Ennis, 1993) as it is flexible where the students can choose their own type of writing and it involves the complex critical thinking that leads the students to be more focus on their own project and topic that moreover lead them to their own analysis. The four-meeting process started by generating ideas, conducting research, designing the writing framework, and performing their result. Through this process, the students learn to develop their own critical thinking (Bean, 2011) and thus gain their own confidence (Garrison, 1992) in delivering analytical judgment toward their product of creative writing to be presented to the readers (Cottrell, 2005). In the end, it is crystal clear that the ideas of students evolved and varied based on their own research and way of thinking as their critical thinking skills were enhanced by the project-based learning approach in the classroom. In the final meeting, the classroom is then, again, covered by the active discussion that allows the students to deliver their final thoughts regarding the environmental degradation issue, what they have gained so far, and the positive change that they have been through along the creative writing process.

5. Conclusion

The distinctness of critical thinking skills in higher education students no doubt needs to be improved and bore in the curriculum or subject regarding its importance. Combining the writing process and project-based learning approach to improve students' critical thinking can be one of the best ways as it leads students to work on their own projects fully covered by writing, thinking, and rethinking activities. Environmental degradation issue at some point also an essential issue to talk about for English Literature students considering it stands also as the burning issue that has been talked about and analyzed for decades. At some point, of course, it may vary in other disciplines. Through the seven meetings of the creative writing class using the project-based learning approach, the outcome was fruitful as the ideas of the students enhanced and varied in the third classroom meetings from three to eight various ideas regarding the effect of vehicles on environmental degradation. This critical improvement developed through active discussion and the four weeks of creative writing process followed by the students of English Literature at Hau Oleo University. Another variable that also supports the improvement of students’ critical thinking is their own background, especially their origin. Those who are from rural areas such as coastal or small island areas tend to be able to generate specific and various effects on environmental degradation as they have witnessed some of the degradation in their villages.

References


