



Integrating Literary Works in an English Class to Improve Students' Critical Thinking

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Abstract. The important role of critical thinking in supporting students' development process has long been recognized. Therefore, many researchers contribute in investigating how to nurture and improve critical thinking in students; one of the findings is by integrating literary works in English classroom learning. However, due to several factors, the use of literary works in the classroom has not been effective. This study focuses on investigating the impact of integrating literary works to improve students' critical thinking in English class with the aim of discovering how teachers could use literary works in the class and how integrating literary works could improve students' critical thinking. Besides, it also addresses students' perceptions of the literary works used in the class to improve their critical thinking. Using a descriptive research design, the data obtained from observations and questionnaires were analyzed qualitatively based on Multiliteracies pedagogy components which consists of situated practice, overt instruction, critical framing, and transformed practice by Cope and Kalantzis [1]. The result shows that the teacher has integrated literary works based on the four components of Multiliteracies pedagogy although in different portions, where it is dominated by activities on situated practice and overt instruction. The teacher mostly employed a personal-response approach to foster students' engagement and participation, which is believed as one of the significant indicators in improving critical thinking. Moreover, through a questionnaire, all of the students observed gave a positive response by stating that literary works analysis helps them when giving opinions and judgment more critically.

Keywords: critical thinking · literary works · integrating literature · English class

1 Introduction

The use of literature to teach critical thinking in the classroom has received considerable attention in recent years; it is because nurturing and improving students' critical thinking is a necessity in preparing students for their future. Critical thinking is known as an essential skill that should be possessed by students in supporting their learning inside and outside the classroom [2]. By having the skills, students could make better judgments, problem-solving, reasoning skills, and also have critical awareness [3]. In addition,

students would improve their cultural and social awareness as a provision for their life in society and the work field.

It is generally accepted that integrating literature in the English classroom is one of the effective ways in improving students' critical thinking. This includes teaching and using poems, short stories, novels, or other forms of literary works to support the learning process and foster students to think critically in their learning. In research by Stefanova and Bobkina [4], they proved that both students and teachers perceive the model of literature integration in the classroom as highly effective to improve critical thinking skills. By integrating learning with literary works, students could get more meaningful and engaging learning experiences. A study found that the use of literary works can be very interesting and advantageous because literary works can provide students with interesting and enjoyable learning [5]. Moreover, literary works also motivates students to do activities and gives more opportunities to discuss literary texts and relate them to current issues in the real world [6].

As stated above, critical thinking provides many benefits for students, but it is observed that there is a lack of critical thinking skills in many students nowadays [2]. This problem may be caused by the unsupported learning environment that can build or improve students' critical thinking skills. In the Indonesian context, it was discovered that the English class had not taken students' critical thinking seriously [7]. For instance, teachers rarely integrate literary works in the classroom, which is one of the learning materials that can be used to nurture students' critical thinking. Thus, if this situation continues, students' learning process would be disturbed in many aspects since critical thinking is essential to support their learning.

A considerable amount of research has been focused on investigating the use of literary works to improve students' critical thinking, among others are [3] – [6]. However, few researchers have used primary research to investigate this issue, and students' perspectives are rarely included. Therefore, it is desirable to conduct research in investigating the issue by conducting primary research and include students' perspectives on the use of literary works for learning in the English classroom. This present research focuses on investigating the integration of literary works to improve students' critical thinking in an English class. The research aims to find out how teachers could use literary works in the classroom, how integrating literary works could improve students' critical thinking, and how students' perspectives toward the use of literary works to improve their critical thinking skills.

2 Critical Thinking

The notion of critical thinking has undergone many developments over the time. Until nowadays, many researchers have put forward the definition of critical thinking. However, there is no single fixed definition that can be used to define critical thinking comprehensively and satisfactorily. In the reviewed studies by Shukri and Mukundan [3] and Pardede [5], it is argued that no single definition has been made to represent the concept of critical thinking due to its complexity. Thus, the concept of critical thinking will continue to develop in accordance with the times. Glaser (as cited in [6]) defined critical thinking as an attitude to consider an experience or social case wisely and thoughtfully

with good reasoning skills. Meanwhile, Facione (as cited in [5]) demonstrated six critical thinking skills including analysis, interpretation, evaluation, inference, explanation, and self-regulation and two sets of dispositions: approaches to life in general and to specific issues and questions. This shows that a critical thinker is a person who is able to engage with certain issues holistically and critically starting from recognizing, analyzing, evaluating, and determining attitudes towards the issues. From those definitions, it can be reflected that critical thinking involves a complex thinking process in how to deal with a problem which will provide many benefits to students. Shukri and Mukundan [3] stated that ...

“Critical thinking enables students to engage in a more purposeful and self-regulatory in judgment, helping them in their evaluation of the arguments of others and of their own, coming to well-reasoned resolutions to any complex problems, and to be able to resolve conflicts encountered in their daily lives.”

Critical thinking not only helps students in the learning process inside the class but also prepares them to live their daily life outside the classroom. It makes students understand themselves better and know how to think systematically and comprehensively so that it fosters the emergence of better evaluation, judgment, and argumentation skills with good reasoning based on evidence. The world with all its changes requires meaningful global citizens who are expected to understand, assess, explore, and evaluate its diversity and dynamism due to technological developments and globalization, which cannot be separated from individuals with critical thinking skills [2]. In addition, Karakoc [8] also argued that critical thinking is important to prepare students to enter the world field, in which a modern work environment requires people with more critical thinking and problem-solving abilities.

3 Developing Students' Critical Thinking Through Literary Works

Literature has been used for a long time in English classrooms because of its usefulness, such as providing authentic materials, improving linguistic knowledge, developing interpretive skills, promoting cultural understanding, facilitating critical thinking, and stimulating social development [5]. One of the important values in integrating literature in the classroom is to promote students' critical thinking skills which its effectiveness has been mentioned in studies such as [2, 4, 5]. Literature can encourage active learning in students by fully involving them in the learning process. Bobkina and Stefanova [6] in their study mentioned that through fictional works analysis, students could get more opportunities to further explore, interpret, and understand the world around them. This means making them more active in observing and evaluating things related to their daily life and experiences which require them to think critically. Moreover, Tabačková [2] also stated in her study that a literary text could be considered as a great and appropriate reflection of the real world.

Using literature for teaching, especially through engaging students in the classroom can train skills that support their critical thinking. Alwine (as cited in [3]) stated that while studying the literature,

“students are required to demonstrate their capacities in differentiating facts from opinions, understand both literal and implied meaning of tone, construct moral reasoning and well-grounded judgements, as well as to be able to relate and apply what has been learnt to the real world”.

In this case, students are expected to do a deeper comprehension of the literary works through understanding contexts in the literary works itself then building connection to other contexts so that they can generate their own interpretation and judgment towards the texts.

Improving students’ critical thinking skills through literature does not merely use literary works as learning materials in the classroom. This requires good control and management of the teachers toward the students during the learning process. Hopkins and Bridges (as cited in [3]) argued that teaching the literary works alone without the participation and involvement of students in the learning process will not have a significant impact on the development of the students’ critical thinking. Therefore, teachers have an important role in guiding and monitoring students in class activities to comprehend the context of the literary works and scaffold them in how to think rather than focusing on explaining the content of the works. Teachers are also responsible for the type of literary works to be used in the classroom because it will affect the effectiveness of its use in improving students’ critical thinking skills [4].

4 Integrating Literary Works to Improve Students’ Critical Thinking

Prose, poems, and drama are three types of literary works that are often integrated in classroom learning. Prose is one form of literary works which is structured without following the rules of rigid rhythms and patterns [9]. It is written freely in irregularity and a variety of rhythm forms, so it is very different from poems and drama. From this definition, it can be said that literary work in the form of paragraphs is classified as prose such as short stories, novels, fables, romances, and other forms of narrative stories. Another category that is often encountered and has a similar meaning is fiction, where the only difference lies in where the idea is derived. Pardede [5] mentioned that fiction is a fictional story that is made from the imagination of the author so that often this story does not really happen but can represent real-life situations. The study by Chen [9] also stated that fiction is the scope of prose. Poem is a work of literature produced in a metrical or patterned manner [10]. In contrast to prose, poems are written in stanza and form a rhyming pattern. In poems, condensed language is frequently employed to communicate meaning, so poems are commonly written in the form of brief lines. Poems also frequently employ figurative language to convey beauty and keep the rhyming pattern. Drama is a literary work that students can perform as actions, dialogues, or sights [11]. She also mentioned in her study that drama is not merely a piece of literary work to be read, but rather a performance to strengthen speech communication abilities. In terms of format, drama is written in paragraph form and comprises its characters’ conversation and actions.

The integration of literary works in the classroom is believed to be effectively used to improve students’ critical thinking, and the three types of literary works that have

been mentioned provide different aspects in fostering students to think critically. Prose is argued to be effective for its integration in the learning process to improve students' critical thinking because it could involve complex stories with multiple characters, settings, plots, and conflicts [5]. Therefore, readers have to analyze them to find the core of the stories. By assigning students to analyze prose, they can practice and develop their critical thinking skills. In the process, students need to comprehend the story, analyze the meaning contained both explicitly and implicitly, build a connection with the story, and draw conclusions by involving their thinking process. This also applies when students read and comprehend poems and drama. Because poems have a condensed but meaningful form, this provides opportunities for students to interpret poems from various points of view [10]. This can support students to think critically in making meaning according to what they find in the poems. Drama also allows students to practice their critical thinking because they must deal with the language structures and language elements of the drama before performing the play [11]. This means that students have to analyze and interpret the content in the process of making meaning of the drama. Moreover, all types of the literary works are related to and can reflect real-life situations so students can connect their experiences. The big possibility that the plot and conflicts they encounter in the stories are also found in everyday life benefits students in practicing their problem-solving skills and seeing problems from various perspectives. Riecken and Miller (as cited in [5]) supported this idea by stating that "students will evaluate evidence, draw conclusions, make inferences, and develop a line of thinking if they approach the story through a problem-solving perspective".

By paying attention to the concept of thinking and literature, several researchers have designed an instructional model that can be used to integrate literary works and constructed available indicators that can increase students' critical thinking. Bobkina and Stefanova [6] built a model of teaching critical thinking skills through literature that covers the range of literacies of the New London Group. This model consists of several stages namely (1) situated practice, (2) overt instruction, (3) critical framing, and (4) transformed practice. Meanwhile, Tung and Chang [12] suggested three factors that must be considered in promoting students' critical thinking through literature in classrooms namely i) the application of Socratic questioning to promote the elaboration of thoughts; ii) a text selection which provides believable contexts to develop students' critical and problem-solving skills; and iii) an experienced instructor that could foster a safe and comfortable environment for critical inquiries. Another study by Tabačková [2] stated the importance of Bloom's taxonomy that she argued the questions made and asked to the students must be in accordance with the order from those that focus more on explicit content in the literary text to implicit content that requires interpretation. Through that way, students can practice and build their thinking patterns systematically. Finally, teachers can use a variety of approaches to teach the literature components in integrating literary works in the classroom. These approaches may include (1) Language-Based Approach, (2) Paraphrastic Approach, (3) Information-Based Approach, (4) Personal-Response Approach, (5) Moral-Philosophical Approach, and (6) Stylistic Approach [13].

5 Method

Using a descriptive research design, this research was conducted at an international high school in Medan with one sample class consisting of 9 students. The data collection was conducted qualitatively using two methods, namely observation and questionnaire. First, observation was conducted several times around 2–4 times to observe the learning process that occurs in the subject of this research in an online-mode class of instruction. The researcher observed the learning process in the class including teacher and students' interaction naturally using observation sheets focusing on several aspects namely use of teaching models, teacher's instructions, and teacher-students interactions/students' participations. The observation sheet was designed by adapting the observation checklist used in the research of Mustakim et al. [13] and based on the Multiliteracies pedagogy model by Cope & Kalantzis [1]. Second, the questionnaire was given to students after the observation period was completed. The questionnaire contained several close and open-ended questions that were used to seek information about how the integration of literary works could improve critical thinking and the perspective of the students toward the use of the literary works in improving critical thinking. The questionnaire used was designed by adapting the questionnaire on Hasan and Hasan [14] research about students' perception towards literature integration in the English language departments at Duhok and Zakho universities.

6 Findings and Discussion

Based on the observation findings, it shows that the personal-response approach is the most commonly employed approach. Other approaches found were information-based approach and stylistics approach, while the moral-philosophical approach was not found specifically during the observations. These approaches were observed during observations when the teachers taught the class using literary works in the form of an act-play and poems. The topics or themes discussed were borders and boundaries and feeling exile. Afterwards, the use of approaches found in learning literary works in the classroom during observations is then categorized based on four components of Multiliteracies pedagogy, namely situated practice, overt instruction, critical framing, and transformed practice relating to the stages applied by the teacher in teaching the literary works.

6.1 Situated Practice

In this second stage, students do a reading activity to comprehend the literary works in general. Teachers usually use comprehension questions to check students' understanding of the text they are reading. At this point, it was discovered that the teacher employed an information-based approach to elicit information from students and to verify their understanding from reading the literary works. Another approach found was the personal-response approach which used to elicit students' response to the text. Moreover, it was found that the teacher engaged the students in discussion activities to allow them to share their viewpoints. One application was when the teacher gave a comprehension question to students after reading the literary work as follow:

What is the poem about? What is the narrator trying to convey?

Another example was when the teacher gave a follow-up question when students present the results of their discussion. With this, the teacher could get a more detailed explanation and comprehension by asking students to elaborate on their answers or give their personal point of view.

6.2 Overt Instruction

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6.3 Critical Framing

In the third stage, students link the language forms and sociocultural contexts of the literary works based on their conscious attention. They examine the structure as well as the author's choice of words in the literary works. It was found that the teacher used a stylistic approach at this stage but did not conduct many activities. The teacher only gave some instructions and questions to the students without further discussion. This can be seen when the teacher assigned several students to find the meaning of difficult words encountered when reading literary work in the form of a poem; these words include "jalopy" and "bullhorn". It aimed to guide students to analyze the literary work in understanding the context and situation presented in the literary work. In addition, the teacher also occasionally pointed to certain lines which have significant meaning in the literary work and asked students' personal opinions in interpreting the lines. In addition, other learning activity was also found when students analyzed the gist and characters of a literary work by including evidence in the form of quotations or sentence fragments from the text that can show the results of their analysis and interpretation.

6.4 Transformed Practice

The fourth stage requires students to create their own texts, which may entail modifying original texts within the same mode or switching across modes. In this case, for example,

students could create their own works by converting a poem into prose or vice versa; this also applies to other text modes. One activity found in this stage was when the teacher assigned students to analyze the characters from an act-play in order to make an essay. In this activity, students were assigned to identify and analyze each character in the act-play by linking it to the class discussion topic. The teacher used a stylistic approach in guiding students in the analysis process by paying attention to the choice of words and social images in the text in interpreting the characters.

Components in the form of stages in integrating literary works used by the observed teacher include 1) situated practice, 2) Over instruction, 3) Critical Framing, and 4) Transformed practice. This finding has similarities with the model for teaching critical thinking in the ESL classroom by Jun [15] which has the same focus flow. The model consists of 5 steps which include pre-reading activity, comprehension activity, logic of the literary works exploration, the logic of the literary works evaluation, and composition. Thus, this could indicate the importance of scaffolding in learning literary works in order to achieve effective results to develop critical thinking in students. This also shows that critical thinking needs to be developed gradually, not instantaneously, which requires a teacher to guide the students.

In integrating literary works, it was discovered that the teacher frequently uses the personal-response approach in the classroom. This approach allows students to respond to literary works according to their own interpretations, allowing them to actively engage their thinking processes. It is mentioned in research by Bobkina and Stefanova [6] that this approach helps students to connect the fictional world to the real world through a complex process. Thus, it makes students gradually become aware of the meanings assigned to literary representations and the emotions evoked by them. The finding of that research also shows there was strong evidence that this type of approach which focuses on students is a notable way to promote active observation and evaluation, which are indicators of critical thinking.

The result of this research does not reflect the research's finding by Mustakim et al. [13] which found that the information-based approach and the paraphrastic approach were approaches that were often used by the teacher. Those approaches focus more on eliciting information after students have read the literary works and translating it to make the literary works easier to understand for students. This difference can be caused by differences in the characteristics of the sample students which affect the approaches used by the teacher. This can imply that the use of approaches by the teacher adjusts to the genuine needs of the students in the classroom. For example, this research observed students at an international school who are already accustomed to using English so that the paraphrastic approach is not the focus of this research.

Literary analysis gives students the opportunity to see literary works more deeply, not only stopping at the general comprehension of texts but also including understanding its implicit meaning. This involves the process of interpreting and evaluating the language and social context of the literary works. This is also related to the stylistic approach applied by the observed teacher where the teacher guides students to pay attention to certain words and lines for the analysis. According to Alwine (in [3]), critical thinking could be developed through learning activities that help students understand the meaning

of literary works by demonstrating their ability to recognize both the literal and inferred meaning of tone and making reasonable judgments.

Literary works that are authentic also have a positive impact on students. This seems to give students exposure to problems and issues that occur in the real world. In terms of literary works analysis, students could also reflect on themselves and compare the things they find to their own experiences. For example, in analyzing and finding problem solving in literary works students can express their opinions and judgments based on things they have experienced before. This finding is in line with what was found by Tabačková [2] which states that thinking about literary works could reflect the thinking about real-life situations.

In addition to the two indicators namely literary work analysis and real-world problem reflection mentioned above, there is one more crucial indicator that is worth noting which is students' direct involvement in learning. By giving students the opportunity to actively engage in learning activities, it makes students more active in exploring literary works. Students could benefit from learning activities such as group discussions to help them generate ideas and opinions. This activity can also demonstrate that there will always be many points of views on one subject matter.

Furthermore, the teacher's role as a guide for students is also important in learning activities. In this case, the teacher must be active in engaging students in discussing literary works. Shukri and Mukundan [3] in their research suggest that teachers should not only focus on employing one approach in integrating literature, but also the need to be able to create a conducive classroom environment to promote active learning. For example, in observations in this research, it was found that the teacher often gave follow-up questions to students to elaborate on their responses. Thus, it can encourage students to think critically and explore new ideas. This is also similar to the findings of Tung and Chang [12] which states that there are 3 factors that must be considered in promoting students' critical thinking through literary works, namely the implementation of Socratic questioning to promote elaboration of thoughts.

Regarding students' perception, it was found that students had a positive response regarding the integration of literary works to improve their critical thinking skills. There are 3 main points discussed regarding the integration of literary works in the classroom, namely increasing students' involvement in learning, increasing students' self-reflection, and improving the way students' express opinions and judgments more critically. This is supported by the research findings of Hasan and Hasan [14], which revealed that literary integration aids in the development of critical thinking, personal interpretative opinions, and analytical skills in students.

The results of this research have similarities with research by Viana and Zyngier [16] which gave positive responses that learning literary works in classroom can increase students' involvement in learning and self-reflection. It is said that reading and discussing literary works together could encourage students to reflect on their educational experiences. The interaction and freedom of expression-focused teaching method was well received by the students [16]. This demonstrates how studying literary works gives motivated students numerous possibilities to interact with the literary works. Those findings demonstrate that students could practice their thought processes in nurturing and improving their critical thinking when given the opportunity to be active and free to respond to

the literary works. Thus, this is a concern and note for teachers to consider in integrating literary works to promote critical thinking in the classroom. It is important that they could choose strategies and teaching activities that are in accordance with the needs of students to be actively involved in learning.

7 Conclusion

Based on the findings, it can conclude that the teacher has integrated literary works based on the four components of Multiliteracies pedagogy although in different portions, where it is dominated by activities on situated practice and overt instruction. The teacher mostly employed a personal-response approach to foster students' engagement and participation, which is believed as one of the significant indicators in improving critical thinking. Other approaches found are information-based approach and stylistic approach. Moreover, through a questionnaire, all of the students observed gave a positive response by stating that literary works analysis helps them when giving opinions and judgment more critically. Students also revealed that integrating literary works in the classroom can increase students' involvement in learning and improve the ability for self-reflection.

References

1. Cope, B., & Kalantzis, M. (2000). *Multiliteracies: Literacy Learning and the design of Social Futures*. Londres: Routledge.
2. Tabačková, Z. (2015). Outside the classroom thinking inside the classroom walls: Enhancing students' critical thinking through reading literary texts. *Procedia - Social and Behavioral Sciences*, 186, 726-731. doi: <https://doi.org/10.1016/j.sbspro.2015.04.042>
3. Shukri, N. A., & Mukundan, J. (2015). A review on developing critical thinking skills through literary texts. *Advances in Language and Literary Studies*, 6(2), 4-9. doi: <https://doi.org/10.7575/aiac.all.v.6n.2p.4>
4. Stefanova, S., Bobkina, J., & Sánchez-Verdejo Pérez, F. J. (2017). The effectiveness of teaching critical thinking skills through literature in EFL context: A case study in Spain. *International Journal of Applied Linguistics and English Literature*, 6(6), 252-266. doi: <https://doi.org/10.7575/aiac.ijalel.V.6n.6p.252>
5. Pardede, P. (2019). Using fiction to promote students' critical thinking. *JET (Journal of English Teaching)*, 5(3), 166-178. doi:<https://doi.org/10.33541/jet.v5i3.1309>
6. Bobkina, J., & Stefanova, S. (2016). Literature and critical literacy pedagogy in the EFL classroom: Towards a model of teaching critical thinking skills. *Studies in Second Language Learning and Teaching*, 6(4), 677-696. doi:<https://doi.org/10.14746/ssllt.2016.6.4.6>
7. Ilyas, H. P. (2017). Historical perspective: The development of Critical Thinking in Indonesian ELT. *Journal of ELT Research*, 2(2), 89-102. doi:https://doi.org/10.22236/jer_vol2issue2pp89-102
8. Karakoc, M. (2016). The significance of critical thinking ability in terms of education. *International Journal of Humanities and Social Science*, 6, 7th ser., 81-84.
9. Chen, G. (2019). A literature review on prose study. *Proceedings of the 6th International Conference on Education, Language, Art and Inter-cultural Communication (ICELAIC 2019)*, 378, 512-516. doi:<https://doi.org/10.2991/assehr.k.191217.182>

10. Irmawati, Noer D. (2014). Understanding how to analyze poetry and its implication to language teaching. *International Journal on Studies in English Language and Literature*, 2(11), 35-45.
11. Angelianawati, L. (2019). Using drama in EFL classroom. *JET (Journal of English Teaching)*, 5(2), 125. doi:<https://doi.org/10.33541/jet.v5i2.1066>
12. Tung, Chi-An & Chang, Shu-Ying. (2009). Developing critical thinking through literature reading. *Feng Chia Journal of Humanities and Social Sciences*. pp.287–317
13. Mustakim, S. S., Mustapha, R., & Lebar, O. (2014). Teacher's approaches in teaching literature: Observations of ESL classroom. *Journal of Educational Science*, 2(4), 35-44.
14. Mohammed Hasan, A., & Hasan, Z. F. (2019). Students' perception towards literature integration in the English language departments at Duhok and zakho universities. *Advances in Language and Literary Studies*, 10(4), 130-152. doi: <https://doi.org/10.7575/aiac.all.v.10n.4p.130>
15. Jun, Xu. (2011). The Application of Critical Thinking in Teaching English Reading. *Theory and Practice in Language Studies*, 1(2), 136–141. <http://ezproxy.upm.edu.my:2099/> <https://doi.org/10.4304/tpls.1.2.136-141>
16. Viana, V., & Zyngier, S. (2019). Language-literature integration in high-school EFL education: Investigating students' perspectives. *Innovation in Language Learning and Teaching*, 14(4), 347-361. doi:<https://doi.org/10.1080/17501229.2019.1608999>

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