Promoting EFL Students' Critical Thinking and Self-Voicing through CIRC Technique in Academic Writing Courses

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Abstract
Critical thinking and self-voicing are two demanding skills that facilitate students to produce concise, authorial academic texts. While most writing programs and research have paid much attention to improving students' writing achievement, less attention is given to promote these two skills in English as a Foreign Language (EFL) writing classrooms. This article reports a classroom-based study investigating the use of the Cooperative Integrated Reading and Composition (CIRC) technique to promote EFL students' academic writing skills. It particularly examines how the CIRC technique helps to foster students' critical and self-voicing stance in developing argumentative texts. A participatory qualitative study was employed, involving 64 undergraduate students majoring in English Education. Data were generated from the participants' writing portfolios, observations, and the teacher's reflections. The collected data were managed, classified, and analyzed using NVivo 12 to elicit the emerging themes. Drawing on the qualitative content analysis, the results showed that the CIRC technique helped to shape the participants' critical thinking and self-voicing skills which were consistently demonstrated during the student-centered activities and their writing results. The participants could

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engage in productive writing processes, such as critical reading, note-taking, summarizing, drafting and revising composition, peer-reviewing, and other related collaborative skills. The findings indicated that the development of students' critical thinking and self-voicing skills simultaneously affected the quality of their academic writing texts.

Keywords: Academic writing, CIRC technique, critical thinking, self-voicing.

1. INTRODUCTION

The primary goal of academic writing programs in the tertiary context is geared to assist students in writing various literary texts that represent their genuine and authorial voices. With this goal in mind, students learn how to search for and use references from multiple sources to support their ideas and put them down into a compelling and coherent written work. Students need to have adequate linguistics and rhetorical devices to express their own thought to claim ownership of their writing (Zare-ee et al., 2012). To accomplish this objective, some related skills are necessarily developed, particularly critical thinking and self-voicing. This is due to the fact that academic writing activities have a lot to do with these two skills, especially when students build up arguments and produce a well-organized passage (Canagarajah, 2002).

Ataç (2015) pinpoints that critical thinking involves critical reading and writing processes. Critical reading may include examining different perspectives openly, evaluating a position, and drawing an appropriate conclusion. Meanwhile, critical writing refers to offering conclusions in a well-reasoned manner to convince readers. Thus, critical thinking deals with dual abilities: (a) the capacity to "understand, analyze, and evaluate ideas or arguments", and (b) the ability to "present, synthesize, and develop those arguments in a systematic way" (Widodo, 2012, p. 89). Moreover, self-voicing refers to "expressions of writers' views, authoritativeness, and authorial presence" (Ivanic & Camps, 2001, p. 7). Self-voicing, as the idea goes, can be affected by three types of positioning, including (1) ideational positioning – what beliefs, preferences, and values writers hold, (2) interpersonal positioning – how they see their relationship (i.e., authoritativeness) with readers, and (3) textual positioning – how they turn meanings into a text. These positioning types serve as predetermining factors on how language constructs the writer's voice or identity.

Several scholars have acknowledged the importance of incorporating critical thinking and self-voicing in college EFL writing classrooms. Facione (2000) asserts that critical thinking includes explanation, self-regulation, interpretation, inference, analysis, and evaluation, and these components help students seek and produce multiple ideas and voices. Along with critical thinking, self-voicing is essential to assist students to express their genuine ideas or arguments based on a specific academic discourse, and this improves the quality of writing production (Danbin, 2015). Barnawi (2011) further explains that incorporating critical thinking and self-voicing in a writing classroom allows students to express their position clearly in writing and use their prior knowledge and other sources of information to present ideas. These skills help assist them in evaluating and improving their pieces of writing.

Besides, it allows them to be reflective and independent writers. Thus, equipping critical thinking and self-voicing skills benefit students in sense of developing idea creativity and originality.

Although EFL teachers seem to agree that critical thinking and self-voicing play an important role in writing, many encounters challenge to address and equip students with such skills in writing classes. There are some underlying reasons why this issue has emerged. Benesch (1999) argues that EFL students are stereotyped as incompetent writers who cannot articulate critical manners. They, so this argument goes, have neither adequate knowledge nor linguistic competence to accomplish any writing tasks. Another reason is due to cultural-related issues (Fell & Lukianova, 2015). The teaching process is likely dominated by teacher-centered learning, focus on form, reproduction of ideas, textbook-oriented, and memorization. It seems that critical thinking is incompatible with the L2 learners' cultural values. As a result, this mode of thinking is not entirely addressed in the educational system. This occurs in most Indonesian classrooms where teacher-centered and fact-based orientations are regularly put in place. Students are predominantly given a series of lectures about text structures, mainly on writing descriptive reports. They seldom learn how to read and write about any controversial issues critically. They also have fewer opportunities to engage in a collaborative writing process to draft, revise, and polish their writing. As a result, students are not well-equipped with these skills.

Some studies suggest that involving students in such process-oriented writing activities can help them cope with the aforementioned issues (Sutrisno et al., 2018; Yusuf et al., 2019). Sahardin et al. (2017) conducted a pre-experimental study (*n*=14) examining the effect of using a Think Pair Share technique on students' writing skills. The study revealed that this cooperative technique could significantly improve students' writing scores in terms of organization, vocabulary, and content. Furthermore, Mustafa and Samad (2015) examined the effect of a cooperative integrated reading and composition (CIRC) technique on students' achievement in writing a recount text (*n*=60). This study revealed that the CIRC technique significantly improved the participants' writing skills, especially on the content and organization. Ataç (2015) conducted a qualitative study to investigate the first year of college students (*n*=49) to know their perceptions about critical thinking skills and critical writing discourse. The results revealed that, although the participants showed less critical thinking skills in writing and discussion in the given period of study, the majority had a positive opinion about learning the skills in the writing instruction and preferred the skills taught in regular classes. More recently, Liu and Yao (2019) revealed that task-based cooperative learning could shape students' higher-order thinking. Although this technique is deemed effective in various studies, it needs considerable preparation and classroom management (Ghufron & Ermawati, 2018).

Despite a myriad of previous studies examining the effectiveness of cooperative learning in improving students' writing skills, there is limited published research to incorporate the cooperative learning principles to promote students' critical thinking and self-voicing skills in Indonesian EFL writing classrooms. This classroom-based research focuses on promoting these two skills through the implementation of the CIRC technique. This research question guides this study:

- How can the CIRC technique promote the students' critical and self-voicing skills in the academic writing course?

2.   LITERATURE REVIEW

2.1   Conceptualizing Critical Thinking and Self-Voicing Skills

Scholars define critical thinking in different ways due to its sophisticated cognitive nature. Philosophically, it deals with goal-oriented thinking that meets standards of adequacy and accuracy – thinking aimed at forming a judgment (Bailin et al., 1999), or judging in a reflective way on what to do or what to believe (Facione, 2000). In the psychological view, critical thinking means the use of the cognitive ability to see both sides of an issue, being open to new evidence that disconfirms ideas, reasoning dispassionately, demanding that claims are backed by evidence, as well as deducing and inferring conclusions from available facts (Willingham, 2007). However, in the pedagogical perspective, critical thinking is more apparently defined as a set of observable cognitive abilities comprising multiple elements: identification, evaluation, and analysis to understand a particular issue and validate the reliability of claims and arguments by deploying inferences (Pithers & Soden, 2000).

In the field of education, some scholars have attempted to propose critical thinking frameworks (Bullen, 1998; Garrison et al., 2001; Newman et al., 1995). Despite the benefits that these frameworks offer for students' learning, there has been inconsistency on what elements of critical thinking should be taught and how to measure them (Fahim & Eslamdoost, 2014). Among several frameworks, Paul and Elder's (2002) model is considered the most influential and comprehensive critical thinking framework. This model serves as the underlying framework used in this study. This model includes a three-dimensional framework that should be addressed and assessed in the learning writing process (Paul & Elder, 2002, p. 87). The dimensions are as follows:

1. Elements of thought: purposes, questions at issue, information, interpretation and inference, concepts, assumptions, implications, consequences, and point of view.
2. Intellectual standards: clarity, accuracy, precision, relevance, depth, breadth, logic, fairness, and significance.
3. Intellectual traits: fair-mindedness, intellectual humility, intellectual courage, intellectual empathy, intellectual integrity, intellectual perseverance, confidence in reason, and intellectual autonomy.

Based on the established definitions above, critical thinking in academic writing involves a sophisticated cognitive process in producing literary works. This process requires two abilities: (a) the capacity to understand, analyze, and evaluate arguments or ideas, and (b) the ability to use the ideas to develop a well-organized text. These abilities will facilitate students to articulate arguments from their own prior knowledge or transform ideas from existing sources into their own words. Liaw (2007) asserts that individuals who have good critical thinking will be likely to make use of their own and others' information to seek alternatives, pose questions, make inferences, and solve problems. Students can optimally gain these abilities as they go through ongoing activities that explore their higher-order thinking skills (Canagarajah, 2002).

Moreover, the term self-voicing is defined variously by scholars in terms of the concepts or varieties of areas covered. Hirvela and Belcher (2011) define it as a process of "continually creating, changing, and understanding the internal and external identities that cast us as writers within the confine of language, discourse, and culture" (p.83). Cappello (2006) points out that self-voice deals with one's ability to understand

particular information or knowledge and take a position of themselves in this discussion. Drawn from these ideas, self-voicing in academic writing refers to a personal thought that shows a writer's identity or uniqueness which is different from others. Authoritativeness and presence are two crucial aspects weighted in writing. These aspects might contribute to the writers' ability in positioning their thoughts among other ideas and improve the quality of writing. Along with critical thinking, self-voicing is essential to help students express their genuine ideas or arguments based on a specific text or context (Alagozlu, 2007).

2.2   The Use of CIRC Technique in Writing Classes

The cooperative integrated reading and composition (CIRC) technique follow the cooperative learning principles. Like other collaborative models, this technique shares the idea that students work together and are responsible for their own and the learning of others (Slavin, 1995). Olsen and Kagan (1992) emphasize that the CIRC is a group learning activity organized to allow each member to exchange information and gain optimum results. Thus, this technique brings opportunities for students to learn from each other, share opinions and ideas, practice and develop their skills, and solve the academic problems they face.

Olsen and Kagan (1992, p. 3-10) confirm that cooperative context occurs when the gain for each individual is associated with the gain for others; that is, when one student achieves, others benefit as well. Some fundamental principles to promote this goal include:

a) Positive interdependence – the group shares a common goal; members are given complementary and interconnected roles that specify responsibilities which that group needs to complete a task, and each member has only a part of the information, materials, and tools needed to complete a task.

b) Focus on collaborative skills – students should see the need for the skills, understand what the skill looks like, and practice the skill in isolation from regular class content. The skills should be integrated into course content activities, and teachers need to encourage students to preserve in using them.

c) Interpersonal and small-group skills – students must be taught the social skills required for high-quality collaboration and be motivated to use them if cooperative groups are to be productive.

d) Heterogeneous groups – students collaborate with members of diverse backgrounds, such as achievement, diligence, ethnicity, and sex. The advantages of the heterogeneous group include: 1) mixing achievements to promote peer tutoring, 2) improve relations among students of different ethnicities, and 3) sex differences bringing out unique perspectives to group discussion.

e) Individual accountability – all individuals/members of the group feel that each of them is individually accountable for the success of the group.

The CIRC technique is implemented in this study to cope with students' needs in learning academic writing and their lack of critical reading-writing skills. This technique for higher education benefits students in developing their critical reading and writing as they go through a collaborative writing process (Acikgoz, 1992). This technique helps promote students' interests in learning, participation in group discussion, engagement in classroom participation using the target language, and solving their academic problems.

3.   METHODS

A participatory qualitative study was employed to depict naturally occurring phenomena during classroom interactions (Kral, 2014). The participatory approach was used to promote the students' engagement in the classroom instructions where they shared experience and expertise among the classroom teacher, researcher, and themselves. Their participation in this study was entirely voluntary. They acted as active participants who had voices in the decision-making of instructional intervention given in this study, such as the instructional procedures, learning materials, and evaluation. This meant that the relationship between the researcher, the teacher, and the participants was dialectical. The teacher and the participants served as co-investigators with the aim to implement and reflect the action to improve instructional practices.

3.1   Research Setting and Participants

The present research was conducted in a State Islamic Institute based in East Java, Indonesia. This research setting was purposefully selected and deemed appropriate because research regarding the use of innovative pedagogical techniques in Islamic-based higher education institutions is limited. Two cohorts of learners consisting of 68 students were invited to participate. They were sophomores majoring in the English Education Department, aged between 19 and 21. They were chosen because they had passed the Paragraph Writing and Advanced Writing courses as the prerequisite of the Academic Writing course. Through a purposive sampling technique (Cohen et al., 2017), sixty-four students were included as the research participants, including 40 females and 24 males. Four students were excluded because they were senior students who were retaking the course. These four students followed the teaching-learning process, including the essay writing tasks, but their results are not included in the data analysis.

3.2   Instructional Procedures

Engaging students in the critical reading-writing activities using the CIRC technique included the following sequential procedures. In the first meeting, the students were assigned to write a 250-word essay in 60 minutes with the topic 'Students should not be allowed to use phones in the school'. In meeting 2, the teacher provided five different texts (750 words) and asked the students to take one. The teacher allocated the students into six groups consisting of 6 members. Each group was allocated a different text. The group members were assigned to scan the text and find out the main idea of each paragraph and important information from the text. They were then asked to answer questions in the worksheet. Additionally, the students were engaged in peer reviews. Using their own notes, the groups discussed the answers. Each student was then asked to write a 100-word summary. The teacher reminded the students to use paraphrasing techniques when writing the summary to avoid plagiarism.

In meeting 3, the students were seated with their previous group. The writing activity was about making a draft of the essay. The teacher provided a brief explanation of how to plan an essay. They were asked to write a 250-word essay based on the

outline they had made with two or four references to support arguments. Feedback to the activity was given in the form of peer review referring to the aforementioned rubric. After the peer review, the students revised the essays. Corrective feedback was then given by the teacher prior to the revised drafts. In the next meeting, the students were seated in their original group to process the feedback collaboratively and edit the essay.

In meeting 5, the teacher asked the students to write a 250-word essay. The students decided on the topic and they were asked to go online searching for articles to support their ideas. The writing process followed the activities undertaken previously, including making an annotated bibliography, drafting the essay, peer feedback, revising, corrective feedback, and polishing. The last meeting was based on essay writing. The students were asked to write a 250-word argumentative essay in 60 minutes with the topic 'Religious lessons should not be taught in public schools'.

3.3   Data Collection and Analysis

This study used three techniques to collect empirical data, including students' writing portfolios, observations, and teachers' reflections. The students' writing portfolios served as the main source of data to trace the development of critical thinking and self-voicing in academic writing. The students' drafts, peer review rubrics, revised drafts, and final versions were documented over a 6-week intervention. Classroom observations were undertaken by the classroom teacher and the researcher to capture interactions occurring in the classroom, particularly in a small group where collaborative writing activities coexisted. To capture the interactions in detail, a 20-minute group discussion of the six sessions was audio-recorded. These data were triangulated with the teachers' reflections to maintain validity and reliability.

Data from the writing portfolios were analyzed by comparing the students' writing drafts during the six weeks. In particular, the two essays written by the students in the first and sixth meetings were analytically examined. Two raters assessed the students' essays for the consistency in the final judgment to be gained. The raters used the scoring rubric to evaluate the aspects of critical thinking and self-voicing stance demonstrated by the students. The criteria of assessment were based on Paul and Elder's (2002, p. 147) critical thinking model, including nine elements of intellectual standards as follows:

1. Clarity – understandable, the meaning can be grasped; free from confusion or ambiguity.
2. Accuracy – free from errors, mistakes, or distortions.
3. Precision – exact to the necessary level of detail and specific.
4. Relevance – bearing upon or relating to the matter at hand.
5. Depth – containing complexities and multiple interrelationships.
6. Breadth – encompassing multiple viewpoints and comprehensive in view.
7. Logic – the parts make sense together and have no contradictions.
8. Significance – having importance, being of consequence; having substantial meaning.
9. Fairness – free from bias, dishonesty, deception, or injustice.

Each descriptor was given a score from 1 to 5, respectively indicating very poor, poor, average, good, and very good. For instance, in terms of clarity, students would gain a 'very good' value or score 5 if their argument or claim was completely understandable, free from any confusion or ambiguity, and it fully represented

authorial voices. On the other hand, a 'very poor' value or score of 1 indicated that the person's argument or claim was hardly understandable, full of confusion or ambiguity, and did not represent authorial voices.

The observation results were treated as texts. These data were transcribed, and the transcripts were then imported into NVivo 12 software for analysis along with teachers' reflections. The data were coded into clusters and categories to find out the emerging themes. Upon the completion of this step, a qualitative content analysis (Schreier, 2012) was performed to interpret the findings. The results were used to conclude whether or not the CIRC technique could enhance students' critical thinking and self-voicing.

4. RESULTS

4.1 Students' Average Scores of Critical Thinking and Self-Voicing Elements in Essays

The data indicate that the CIRC technique could help students engage actively in student-centered academic writing activities involving critical reading-writing processes. This technique was proven to promote their critical thinking and self-voicing skills, which were represented in their writing portfolios. The improvement of these dual competencies can be seen from the mean scores of the two essay tasks as highlighted in Table 1.

Table 1. Essay scores in terms of intellectual standards.

No.	Writing aspects weighted	Essay 1	Essay 2	Improvement
1	Fairness	3.5	4.1	0.6
2	Significance	3.45	4.35	0.9
3	Logic	3.1	4.15	1.05
4	Breadth	2.65	4.05	1.4
5	Depth	2.3	3.9	1.6
6	Relevance	3.05	4.2	1.15
7	Precision	2.45	3.4	0.95
8	Accuracy	2.45	3.65	1.2
9	Clarity	3.3	4.05	0.75

Table 1 illustrates the students' average scores of critical thinking and self-voicing elements in Essay 1 conducted in week 1 and Essay 2 conducted in week 6. There was a developmental trend in all aspects over a 6-week period of intervention using the CIRC technique. The significance and relevancy aspects were the two highest elements that students could achieve in the academic writing tests, indicating that they could optimally use their knowledge or experiences to support their arguments. However, precision and accuracy were still the lowest elements.

The most significant improvement was gained in terms of the depth and breadth of the argument. The data show that these two elements' scores respectively increased from 2.3 and 2.65 in the first essay to 3.9 and 4.05 in the second essay. This result means that students could better articulate their ideas using complex and multiple arguments. This also indicates that they had a comprehensive and broad-minded perspective.

The following four excerpts illustrate the increase in the students' critical and self-voicing stance in academic writing. The first two excerpts are derived from Essay 1 written in the first week, and the last two excerpts are from Essay 2.

Excerpt 1
If students bring cell phones into the school, it can disturb their learning. They will not concentrate on what the teacher explains in the classroom, this will impact their achievement in learning. The teacher will get angry with them because students who bring handphones can disturb others. Therefore, the teaching and learning process will be impacted. Not only that, students tend to ignore the lessons because they usually use their handphones only for social media. And this is of course dangerous for their future.

Excerpt 2
Because the existence of handphones will give a more negative influence on students, the school should ban the use of handphones in the school. Students who do not obey the school rule can be punished. Positive punishment can be chosen, and this punishment is intended to discipline them. This action can minimize the negative impact of technology on the young generation.

Excerpt 1 is a supporting paragraph, and Excerpt 2 is a concluding paragraph. These two excerpts are taken from one student writer, addressing the same topic, entitled 'Students should not be allowed to use phones in the school'. From these two excerpts, it can be highlighted that in terms of clarity, the paragraphs are not entirely understandable because some words are not clear, and several sentences are confusing. Although most information is fairly accurate, it contains some errors, mistakes, or distortion due to inefficient use of sentence structure. Some run-on sentences can be found both in Excerpts 1 and 2. The supporting paragraph presents some examples with limited explanations. The key information is mixed up in the supporting details, and the conclusion is not straightforward. The information implied in paragraphs is in a fairly close relationship with the tasks. This also means that the excerpts above do not entirely address the elements of thought.

In terms of depth, both excerpts indicate an adequate understanding of complexities, but multiple interrelationships are weak. It is similar to the element of breadth where the excerpts contain fewer multiple viewpoints and comprehensive ideas. In addition, the excerpts show no contradictions in the logic used in the sentences, but the writer did not provide any convincing evidence to support his views. These excerpts demonstrate some key ideas, although there are some features considered less critical. These also present necessary ethical appropriateness in the claim, but parts of the arguments are not based on verifiable facts and seem overclaimed and bias. In short, a close examination of Excerpts 1 and 2 indicates that the student employed below-average intellectual standards. This also means that the student's critical thinking skills and self-vicing are still weak. He was still unable to demonstrate these dual competencies during the writing process.

Nevertheless, in the Essay 2 assessment, students were better at employing their critical thinking and self-voicing skills in writing. Excerpts 3 and 4 are parts of Essay 2, addressing the topic of 'Religious lessons should not be taught in a public school'.

Excerpt 3
Religious lessons should be dropped out from the public-school curriculum since students are heterogeneous. They have diverse religious backgrounds, faith, and beliefs. It is surely hard for schools to provide teachers and perform religious instructions that satisfy all individual needs in religious learning. If schools disregard this issue and generalize the religious lesson, they will get protested by some students, parents, or religious communities. Since faith and religion are personal

matters, it is preferable that public schools let religious lessons be taught by religious groups or communities.

Excerpt 4
In conclusion, the public education system should equally educate and develop students' intelligence and spiritual awareness. Students spend about a quarter of their days at school. Consequently, they should also have a responsibility to help students increase their moral and religious values. Meanwhile, these values can be embedded through the learning process. Public schools should teach them how to appreciate and respect other people's beliefs through project-based learning, for instance, doing public services or doing charity.

Excerpts 3 and 4 demonstrate good clarity and accuracy. Most sentences are easily grasped and free from confusion or ambiguity. Although there are minor errors or mistakes found, these do not affect the general ideas. In terms of precision, these excerpts contain a sufficient level of detail with clear examples and explanations. Most information is relevant and addresses the issue. The concluding remarks are precisely restating the case and recommendation. The elements of thought, such as information, purposes, concepts, assumptions, and viewpoints, are well addressed.

In terms of depth and breadth, the excerpts show thoroughness in thinking as the student writer successfully presents complex ideas that are properly linked between sentences. The ideas are comprehensive, covering multiple perspectives. The arguments are solid and align with the conclusion. Furthermore, the logic is excellent, proven by the use of information that is utterly making sense with no contradictions in both supporting paragraphs and the conclusion. Besides, the excerpts are highly significant, highlighting many essential features. The paragraphs present the fundamental elements of thought in terms of information, interpretation and inference, assumptions, implications, and consequences. In sum, it is evident that the student-writer could activate his critical thinking and self-voicing much better than that in the first two excerpts.

4.2 Classroom Observations and the Teacher's Reflections on Aspects of Students' Learning

Table 2 provides the results of classroom observations and compares the observed aspects of students' learning. The results show that there has been an increased performance between the first observation in meetings 1 and 2 and the second observation in meetings 5 and 6. In the first observation, a few demonstrate intellectual autonomy and integrity in learning. Many still encounter negative feelings, such as feeling embarrassed, anxious, unconfident, and hesitant. These negative feelings restrict them from engaging in and contribute to peer or in-class discussions. They also tend to be passive and do not use English as the target language. These situations change in the second observation during meetings 5 and 6, where a majority of students can increase their performance and achieve the research target. Overall, students can satisfy the 15 observed learning indicators in this study as shown and elaborated in Table 2.

Table 2. Results of observations.

No	Observed aspects	Meeting 1-2			Meeting 5-6		
		No	Nearly	Yes	No	Nearly	Yes
1	As many as three-quarters of students are actively engaged in the writing process.		√				√
2	Demonstrate fair-mindedness and intellectual humility.		√				√
3	Demonstrate intellectual autonomy in learning.	√				√	
4	Demonstrate intellectual integrity.	√					√
5	Show high responsibility for their own and the learning of others.		√			√	
6	Collaborate with their peers/groups.		√				√
7	Contribute to peer reviews/group discussions		√				√
8	Do the tasks deliberately.			√			√
9	Complete the tasks on time.			√			√
10	Entirely follow all stages of the writing process.		√				√
11	Use the target language during in-class and group discussions.	√				√	
12	Show acceptance of different perspectives.		√				√
13	Can manage negative feelings (i.e., embarrassed, anxious, hesitant)	√				√	
14	Have the self-confidence to participate in peer/group discussions.		√				√
15	Show enthusiasm in learning.			√			√

The teacher's reflections also confirmed the findings above. Overall, the use of the CIRC technique could engage the students in a student-centered writing process. Firstly, when reading groups were established and students were paired off with heterogonous members, they learned how to adapt and adjust to the new learning situation in such collaborative ways. It was seen that each member of the group attempted to read the academic reading passage, discuss it and write a summary, as instructed by the teacher. Before asking students to summarize the text, a good model of the summary was given. The teacher invited students to observe the model and highlighted how a good summary was made, i.e., finding out the main idea and paraphrasing the message. A closer analysis revealed that these activities could help students construct and extend their prior knowledge on how to write a critical summary.

Next, critical thinking and self-voicing skills were initially promoted when students received feedback prior to their essays. In this study, feedback was sequentially provided in some forms: corrective, reflective, and peer review. Corrective feedback was given by the teacher by using symbols or signs towards the errors made by students. Some common symbols or signs were given; for instance, the symbol 'Ag' to indicate an agreement error, 'S' for a spelling error, 'P' for a punctuation error, 'Ar' for misuse of an article, 'W' for error in using word choices, 'F' for the wrong form of the word, 'L' to show a problem with linking words, 'C' for collocation error, and 'R' for the wrong register, i.e., too informal. Similarly, some signs were also marked to indicate errors in writing. For example, the sign (^) was to indicate that there was a missing word or expression in a sentence, (…) showed that there was an unnecessary word or that it could be omitted and it was also sometimes used to show the words referred to in a footnote, (?) indicated that the phrase or clause

was confusing, could not be understood or was not logical, (_) was giving a clue that the syntax was out of control, (/) meant to delete the unnecessary word or phrase, and other related marks. The symbols or signs were written using different colors - blue, brown, or green. This tactic helped students to easily notice the location of errors and differentiate the type of errors.

Furthermore, the feedback was also given prior to students' problems being determined. It was given in writing in the form of a comment. The teacher commented on the students' writing to clarify more complex errors, in the area of clarity of content, accuracy, organization, logic, and other areas being weighted in this study. The comments on students' writing were given on the left/right margins or the backside of the paper. The comment was necessary for students as it tended to provide valuable suggestions and guide what they should do to revise and improve the quality of the draft.

Moreover, the teacher provided reflective feedback by overviewing and clarifying common mistakes made by students. Examples of common mistakes were taken from students' drafts, and the errors or writing problems were explained and negotiated with students on how to overcome these common issues. The problem-posing activity was done to encourage students' awareness in revising their writing. The teacher asked the group members in turn to pose questions they had listed (three or four selected problems) towards the unresolved feedback through the projector. While one presented, others were required to pay attention and give suggestions to solve the problems. If it was necessary, the teacher clarified the problems in greater detail. By doing this, it was observed that students could learn from their own and others' mistakes, and this activity could increase their confidence and awareness in solving their writing problems.

Next, students' critical thinking and self-voicing were sharpened via peer review. After the corrective feedback was given, in addition, the group was assigned to discuss, review, and revise their written works based on the feedback they had received in turn in the group. The teacher made copies of the group's written works in order that each member could examine and give suggestions. To make sure group discussion and peer review ran effectively, the teacher encouraged the group to work punctually based on the time arrangement and to avoid toxic discussion. When the group encountered problems in solving their works, they should make notes, and bring the problems during the in-class discussion. Each student/group was suggested to list questions, three or four problems, to be discussed in the classroom.

In undertaking peer review, students may have referred to a rubric of peer feedback. Some guided questions helped them to review other students' work and give suggestions, such as (a) What is the topic of the essay? (2) Is the thesis statement clear? (3) Is it supported by enough details, examples, or reasons? (4) Is there any irrelevant information that should be dropped out? (5) Are there any gaps in the logic used? (6) Is the coherence and cohesion achieved? (7) Are there any grammatical mistakes? Upon the feedback received from peers, students could review and revise their works. They had to decide whether they should accept or reject suggestions and these processes obviously shaped their higher-order thinking.

The collaborative writing process benefitted students in building various skills. These skills included articulating or communicating ideas, agreeing or disagreeing, note-taking, summarizing, revising-correcting composition, and other related skills. Such collaborative activities created a positive classroom atmosphere where each

student attempted to participate in and contribute to the group. It was observed that students were more aware and enthusiastic about collaborating with other peer groups to improve their own and others' writing. The result of observation also showed that most students intended to extend the group discussion session and peer review. The teacher would extend some sessions after the class hour to undertake group discussion or group review. This allowed the groups to have more chances to discuss the essay with the teacher, starting from making outlines, revising outlines, making the first draft, and revising the final draft.

5. DISCUSSION

This study reveals that the learning intervention using the CIRC technique could promote students' critical thinking and self-voicing skills. All observed elements of critical and self-voice stance have improved by a six-week intervention period, with the depth and breadth of arguments being the highest improved indicators. Nevertheless, this study has found that precision and accuracy are still less developed. This result is not quite surprising since the majority of EFL students find problems expressing their ideas in concise and clear manners, as stated by Benesch (1999).

The result also reveals that the participants' critical thinking and self-voicing skills are in line with the quality of the essays they produced. This result might be as such because the students had wide chances to undergo critical reading-writing activities in groups/peers. As stated by Swatridge (2014), the presence of critical and self-voicing stances may give rise to the logic of essays. Integrating critical thinking and self-voicing skills in the learning process and assessment assures students to express themselves clearly and put their own viewpoints into their writing. This helps explain why the participants' writing scores have improved. This finding extends the previous work by Barnawi (2011) that these skills assist students in identifying, evaluating, and supporting arguments by using their prior knowledge, experience, and other sources of information. It has also helped the participants monitor and assess their own learning

Drawn from the findings, it is obvious that the CIRC has effectively facilitated students in the academic writing process. Students could engage more actively in all stages of the writing process and contribute to their peers or groups. The critical reading-writing process is proved to provide motivation in learning and encourage students to write in critical and concise ways, as asserted by Ataç (2015). This might help explain why the students had a favorable opinion on learning critical thinking and self-voicing skills and collaborative reading and writing activities. Most students admitted that they were aware of the importance of those skills and tended to have them in regular classroom instruction.

This study notes that the student-centered activities via the CIRC technique mainly contribute to building up students' critical thinking and self-voicing skills. This technique encourages students to engage in process-oriented academic writing tasks, including drafting, revising, developing, and polishing essays. They empower each other to expand their understanding of making a draft, revising, and developing a well-organized essay. These processes assist students to become critical, independent readers and writers. This writing process can be quite successful because most positive elements of cooperative learning have been well-presented in the classroom, as

asserted by Durukan (2011). These include establishing proper groups, ensuring inter-group communication, optimizing the sources of learning, supporting groups, fostering cooperation, group, and individual assessment.

In particular, critical reading and writing activities have stimulated the students' higher-order thinking. These activities have assisted them in learning how to critically read academic passages to get important information and write an annotated bibliography. Given these tasks, students could strengthen some skills, such as reading to get specific information, note-taking, summarizing, and paraphrasing. These skills are the foundational skills of critical thinking. When students are involved in various critical pedagogical tasks collaboratively in peer and group works, they are encouraged to share ideas using the target language, discuss and solve academic problems.

The next factor contributing to students' critical thinking and self-voicing is the role of feedback. As discussed in the previous section, the feedback in this study was provided in various forms, such as corrective and reflective forms. Corrective feedback in the forms of symbols or signs towards errors in writing helps students to become aware of their mistakes. Students can notice the types of errors they have made and subsequently revise them (Mufanti & Susilo, 2017). The teacher's feedback and comment contribute to the students' argument level of critical thinking. This finding is consistent with previous studies (Hayes & Devitt, 2008; Soozandehfar, 2020).

The commentary given by the teacher helps students identify any errors themselves. They could see that someone has actually responded to their writing as it is developing, where the ideas are getting across, where the confusion is arising, or where logic or structure is broken down. These are essential to improve their writing, as suggested by Hyland and Hyland (2006). Additionally, the reflective feedback assists students to observe common mistakes made by other classmates and allows each student to learn from their own and other students' errors. This feedback could increase their confidence and awareness in solving their writing problems.

Lastly, the peer-reviewing process assists students to shape their critical thinking and self-voicing. Using the peer review rubric, students learn how to review others' work and make suggestions to improve other works. Thus, students benefit each other by learning from others' comments or suggestions, which helps shape their higher-order thinking (Liu, 2018).

6. CONCLUSION

This study has revealed the changes in students' critical thinking and self-voicing after they engage in a 6-week intervention using the CIRC technique. Three main contributions can be drawn from the findings. First, this study provides an empirical account of how collaborative writing activities play an important role in shaping students' critical thinking and self-voicing. Second, the findings extend Canagarajah's (2002) study that the ongoing process-oriented writing activities can enhance their critical thinking and self-voicing and significantly impact the writing quality. Lastly, this study also demonstrates that the CIRC activities promote positive elements of cooperative learning, such as knowing individuals, establishing proper groups, ensuring inter-group communication, sharing materials, supporting groups, fostering cooperation, and group and individual assessment (Durukan, 2011).

Four main practical implications could be proposed prior to the findings. First, when teaching academic writing, teachers need to integrate critical thinking and self-voicing skills in every stage of writing activity and the assessment process. Second, feedback is necessarily given in various ways, such as peer review, teacher's corrective feedback, and/or reflective feedback to facilitate students to notice the existing gaps between their prior knowledge and the intended changes (Mufanti & Susilo, 2017), as well as to trigger their higher-order thinking behaviors (Liu, 2018). Next, in terms of task design, students should be engaged in the various critical reading-writing processes, ranging from guided activities to more independent tasks. Lastly, teachers should scaffold discussion to make sure every student can participate and contribute to the group or in-class discussions.

Although the present study provides an empirical account of the roles of critical thinking and self-voicing stance in writing, it has several limitations in terms of duration, data collection, and assessment rubric. Firstly, researching the development of critical thinking and self-voicing skills requires considerable time to reveal more significant data. Future longitudinal studies are needed to investigate this development using ethnography research design spanning a couple of years. This study does not use video recording to record any activities during the data collection process, especially during small group interactions. Thus, some moments may go unnoticed, and this has restricted this study from gaining the depth of data analysis. Lastly, since critical thinking skills involve a sophisticated cognitive process, the assessment rubric used in this study may not entirely examine the developmental process of students' critical thinking behavior.

Despite these weaknesses, the present study has the potential to provide a theoretical contribution to support the notion that a process-oriented writing task can help students engage in productive academic writing activities and enhance their critical thinking and self-voicing. The increase of students' writing scores might demonstrate the improvement of students' critical and self-voicing stance. However, this result requires further statistical measurement of whether or not it is significant. Therefore, there is a call for further studies using quasi or true experimental research design to examine this finding.

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