

The Implementation of Collaborative Learning to Enhance the Students' Critical Thinking In Writing

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Abstract

The present study attempts to describe whether or not and to what extent Collaborative Learning can enhance the college students' critical thinking in writing, and identify the class climate when Collaborative Learning is implemented. The data of the research were obtained using several techniques including interview, observation, document, and test. The qualitative data were analyzed by using Constant Comparative Method, while the quantitative data were obtained by finding out the mean score of the two raters. The finding of the research showed that the implementation of Collaborative Learning enhanced: (1) students' critical thinking including: (a) providing appropriate arguments; (b) expressing proper evidence to support their arguments; (c) give alternative point of view; (d) drawing clear conclusion. The enhancement of the students' scores could be proved that the mean score of the pre-test was 50.46; the post-test 1 was 71.15; and the post-test 2 was 81.67. Twenty six students from 35 students had fulfilled the criteria of passing grade which was 75 in post test 2; and (2) enhanced the class climate including: (a) students' attention to the teaching and learning process was getting better; (b) students got more alive condition; (c) the students' responsibility increased; (d) the students' self confidence and ability to express themselves improved. Considering the inspiring result of this research, it is recommended that English lecturers are able to use this research for: guiding the students to explore their critical thinking through Collaborative Learning; and being creative to make the class climate interesting by implementing Collaborative Learning

Keywords: *Critical Thinking, Collaborative Learning, Writing*

A. Introduction

Writing can be defined as an ability to communicate all the ideas or imaginations into the form of structured pattern so that the readers may understand what the writers mean in their writing. Writing is similar to swimming which means that somebody is able to swim if someone else teaches him how to do so and so is writing.¹ Briefly, if a student is willing to be able to express his ideas in the written form, he needs someone else to guide and teaches him how to do so well and appropriately.

Writing involves at least five components.² Those components are, firstly is content. It consists of substance of writing and the idea expressed. Secondly is the form of usage. It is about organization of the content. Thirdly is the grammar, the employment of grammatical form and syntactic pattern. Fourth is the style. It is about the choice of the particular structures and lexical items to give a particular tone or flavor to write. Fifth is the mechanic, the use of graphic convention of language.

As stated, one of the skills to make a good writing is the ability to write opinion or main ideas. The students should express their supporting ideas to support their main ideas. Besides, writing performance is different from the other skills. It needs the employment of grammatical form and syntactic pattern, the choice of the particular structures and lexical items to give a particular tone or flavor to write, and the use of graphic convention of language. In this case, the students' critical thinking is quite needed.

Critical thinking has been considered as a valuable tool for teaching and learning since the time of Socrates. One of the important goals in education is to develop and enhance the students' ability to think critically about their knowledge, their actions, and their belief. More recently, the researcher and educators have described the need of critical thinking as important as ever, particularly in today's information age. With access to more and more information, the students must be able to analyze the information systematically to solve certain problem.³

¹ H. D. Brown, *Teaching by Principles an Interactive Approach to Language Pedagogy*, (New York: Addison Wesley Longmanm 2001), p. 334.

² Harris D. P. *Testing English as a Second Language*, (New York; Mc. Graw- Hill Book Company, 1993), p. 68.

³ Martha.E. Alexander, "Using the Four-Questions Technique to Enhance Critical Thinking in Online Discussions", *MERLOT Journal of Online Learning and Teaching*, Vol. 6,

To enhance the students' critical thinking, there are some indicators that should be implemented. A critical thinking should be able to: (1) accurately: interpret evidence, graphics, statement, questions; (2) identify the relevant arguments (reasons and claims) pro and con; (3) thoughtfully analyze and evaluate major alternative point of view; (4) draw careful, non fallacious conclusion; (5) justify key result and procedure, explain assumptions and reasons; (6) fair mindedly follow where evidence and reasons lead.⁴ In different way, but it is still in the same concept, critical thinking has to be able to: (1) identify other people's conclusion, arguments, and conclusions, (2) reflect on issue in structured way, bringing logic and insight to bear, (3) draw conclusion about whether the arguments are valid or justifiable based on the evidence and sensible assumption, (4) have skill to present two point of view in structured, clear, well reason way that convinced others.⁵ Thus, from the characteristics mentioned above, it can be summed up that critical thinking should be able to provide appropriate argument, express evidence to support the argument, give alternative point of view, and draw clear conclusion.

The preliminary research showed that there were some problems of the college students' ability to think critically. The problem identified were (1) the students were not able to put appropriate argument, they were not able to put any evidence to support their arguments, they had no idea to elaborate their reasons, they did not sum up their compositions; and (2) the class climate before the research was also described in several situations. The students took more time than the time that had been allocated for writing because they found difficulties in transferring thoughts and feelings from their heads onto a sheet of paper. Even so, The students could not keep their focus on the lesson. Most of the students did not have ideas to respond to the lecture's explanation.

Based on the situation and the condition that distract the learning process in reaching the target, implementing strategy brings a fresh air in the class climate and it can influence the students' critical thinking. Collaborative learning can be effective for enhancing

No.02, 2010, p.1-5.

⁴ Facione Peter A., & Facione Noreen C, *Holistic Critical Thinking Scoring Rubric*, (San Francisco: The California Academic Press, 1994).

⁵ Stella Cottrel, *What Is Critical Critical*, (New York: Mc. Graw- Hill Book Company, 2001), p. 2.

thinking and promoting meaningful student learning. Collaborative learning as a situation in which two or more people learn or attempt to learn something together. "two or more" may be interpreted as a pair, a small group (3-5 subjects), a class (20-30 subjects), a community (a few hundreds or thousands of people), a society (several thousands or millions of people).⁶ Therefore, the implementation of Collaborative Learning is essential to carry out in order to know whether or not and to what extent Collaborative Learning can enhance the college students' critical thinking in writing, and identify the class climate when Collaborative Learning is implemented.

B. Review of Related Literature

Laal and Godsti (2011) briefly set out Collaborative learning is an educational approach to teaching and learning that involves groups of learners working together to solve a problem, complete a task, or create a product. The result provided an evidence, for the need for think together and work together on critical issues has increased causing to stress on from individual attempts to team work and from autonomy to community. The concept of CL, the grouping and pairing of learners for the purpose of achieving a learning goal, has been widely researched and advocated; the term CL refers to an instruction method in which learners at various performance levels work together in small groups toward a common goal. The learners are responsible for one another's learning as well as their own.⁷ Thus, the success of one learner helps other students to be successful.

Smith and Gregor (2012) from Pennsylvania State University investigated that Collaborative learning represents a significant shift away from the typical teacher centered or lecture-centered milieu in college classrooms. In collaborative classrooms, the lecturing/listening/note-taking process may not disappear entirely, but it lives alongside other processes that are based in students' discussion and active work with the course material. At their best, collaborative classrooms stimulate both students and teachers. In the most authentic of ways, the collaborative learning process models what it

⁶ Dillenbourg, P, "Grounding in multi-modal task-oriented collaboration", In P. Brna, A. Paiva & J. Self (Eds, Proceedings of the European Conference on Artificial Intelligence in Education, (Lisbon, Portugal, Sept. 20 - Oc. 2, 1996), p. 401-407.

⁷ Marjan Laal & Seyed Mohammad Ghodsi, "Benefits of Collaborative Learning", *Social and Behavioral Sciences Journal*, Vol 3, No.02, 2011, p. 20-29.

means to question, learn and understand in concert with others.⁸ Learning collaboratively demands responsibility, persistence and sensitivity, but the result can be a community of learners in which everyone is welcome to join, participate and grow.

The next research was done by Duron and Waugh (2014). In their research, they identified a 5-step framework that could be implemented in virtually any teaching or training setting to effectively move learners toward critical thinking. This interdisciplinary model, which was built upon existing theory and best practices in cognitive development, effective learning environments, and outcomes-based assessment, provided teachers with a useful framework. This framework could be used to move students toward a more active-learning environment which, ultimately, was more enjoyable and effective for teachers and students alike. An example of the model was applied in the context of accounting education, which represented a business discipline in which critical thinking had been consistently cited as both necessary and difficult to implement.⁹

The previous researches were able to establish a theoretical framework for this research. They gave knowledge how those researches were carried out. There was similarity between the researches mentioned above and this research. It was undeniable that the previous researches focused on the implementation of Collaborative Learning to enhance the students' thinking and learning. In this research, the implementation of Collaborative Learning was to enhance the students' critical thinking. Instead of similarity, there was also difference. It was found out that previous researches were conducted in accounting skill; however, this research was carried out to improve the students' writing skill.

C. Research Method

The subject of the research was the students in Arabic Education Department of one university in Ponorogo. There were 35 students in Arabic Education Department and all of them were boys. The

⁸ Smith & Gregor, "Collaborative Learning: A Source Book for Higher Education", *National Centre on Post Secondary Teaching and Learning Assessment*, Vol 7, No. 05, 2012, p. 9-22.

⁹ Robert Duron & Wendy Waugh, "Critical Thinking Framework For Any Discipline", *International Journal of Teaching and Learning in Higher Education*, 2014, Vol1. 7. No. 02, p. 160-166.

research was conducted in two cycles in which there were 4 meetings in each cycle. The research method which was implemented in this research was classroom action research. Action research is a research carried out by teachers, to enhance their own or colleague's teaching, to test assumption of educational theory in practice, or as a means of evaluating and implementing whole school priorities.¹⁰ In addition, action research (for that matter all kinds of research) is more than just doing activities. It is a form of practice which involves data gathering, reflection on the action as it is presented through the data, generating evidence from the data, and making claims to knowledge based on conclusions drawn from validated evidence.¹¹

The model of action research used in this research was the model developed by Kemmis and Mc Taggart. Action research occurs through a dynamic and complementary process, which consists of four essential moments of developing a plan of critically informed action to improve what is already happening, acting to implement the plan, observing the effect of the critically informed action in the context in which it occurs, reflecting on these effects as the basis for further planning, and subsequent critically informed action.¹² Trough succession of research steps can be visually seen as follows:

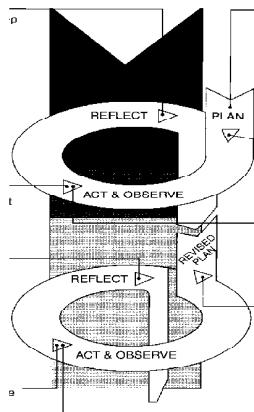


Figure 1 Action Research Cycle (Kemmis & McTaggart)

¹⁰ D. A. Hopkins, *Teacher's Guide to Classroom Research*, (Great Buckingham: Open University Press, 1993), p.01.

¹¹ Jean McNiff & Jack Whitehead, *Principles and Practice Action Research*, (London: Routledge Falmer, 2002).

¹² A. Burns, *Collaborative Action research for English Language Teacher*, (England: Cambridge University Press, 1999).

In this research, two kinds of data were used, quantitative and qualitative data. Quantitative data were the data in the form of the students' scores in generating idea from the beginning of the research to the end of the research. Qualitative data were the data taken from observation, interview, questionnaire, and document. There were some sources of data: (1) documents; (2) participants; and (3) events when the teaching learning process happened

The quantitative data from pre-test and post-test were analyzed in the form of mean score and percentage. In scoring the students' writing, the researcher used analytic scoring in which each element is scored separately. Then, the students' scores were analyzed in the form of mean score. Meanwhile, the qualitative data were described using words and sentences to get the conclusion. They were analyzed by using The Constant Compare Method (CCM). Constant Comparative Method as the following distinct stages: (1) Comparing incidents applicable to each category, 2) Integrating categories and their properties, 3) Delimiting the theory, and (4) Writing the theory.¹³

D. Findings And Discussion

1. Cycle 1

In the present study, the Collaborative Learning provided students with chance to write down analytical exposition and identify the argument, evidence and fact to support their arguments, alternative point of view, and conclusion cooperatively. The informal setting facilitated discussion and interaction between the members of group. This interaction helped students to learn from each other's skill and experience. After analyzing the fact in the preliminary research, the first cycle was designed to help the students' problem in critical thinking. There were four meeting for giving treatment and implementing Collaborative Learning in critical thinking class.

While in observing stage, there were two things observed in implementing Collaborative Learning. They were teaching learning process that the students had achieved and the class climate. The researcher implemented Collaborative Learning in teaching writing: (1) getting the students to make groups and every single group should

¹³ D. A. Hopkins, *Teacher's Guide to Classroom Research*. Great, (Buckingham: Open University Press, 1993), p.16.

be composed of 2 members; (2) ordering every group to write down analytical exposition text; (3) making every group exchange the worksheet with other group; (4) asking every group to review the worksheet whether it has already put appropriate argument, supporting evidence, clear point of view, and clear conclusion or not.

The observation of first cycle revealed that most of the students were able to express their appropriate arguments. They performed better in organizing their ideas since groups of students work together to search for understanding and solutions to their learning. Basically, the teaching and learning process in the first meeting ran well. The researcher asked the students to write pointers as a process to generate their ideas. Only a few students got difficulties in drawing clear conclusion. Teaching and learning in the second meeting also ran effectively. The use of collaborative learning could stimulate the students' thought for getting reason to their assumptions. The students helped each other clarify ideas through discussion. It indicated that the class situation was better than it was in the beginning of the lesson. In the third meeting, post-test 1 was conducted. That test was held to know the students' critical thinking to write analytical exposition. The students looked serious when doing the post-test 1. In the fourth meeting, the researcher reviewed the students' compositions in the post-test 1. Although they made some errors in their paragraphs, most of them could express appropriate arguments and clear conclusion. Researcher also displayed some of the students' worksheets in screen and asked every group to edit their friends' writing. Some groups showed their responsibility to review them. The fourth meeting was successful enough to stimulate the students' critical thinking.

The observation of the weaknesses in first cycle showed that a few students still got difficulties to strengthen their arguments by using evidence or fact. The students also disobey to see alternative point of view in order to convince the readers. When the researcher asked them to write down "what happened if internet did not exist"? Some students only gave negative point of view. Thus, the result in writing analytical exposition had not reached the passing grade (75). It was proved by the result of their expositions that the score of expressing argument was 16.36 in pre test and 20.97 in post-test of cycle 1, the score in giving proper evidence was 9.76 in pre test and

14.63 in post-test of cycle 1. Next, the score of expressing point of view was 9.45 in pre-test and 13.24 in post-test of cycle 1, and the score of stating clear conclusion was 14.89 in pre-test and 22.31 in post-test of cycle 1. From the data above, the result of the students' critical thinking enhanced but the mean score (71.15) had not passed the passing grade (75).

In class climate, the group forming was so crowded and needed some minutes since the students were free to choose their group members. Even worse, some students still felt awkward to work when working in group. Actually every student had different speed in thinking. The groups with smarter students intimidated the groups with lower speed. Therefore, they felt reluctant to check their friends' worksheet in front of the class since they were afraid of making mistakes in their correction. They would just wait for their friends to do that. Based on the condition above, the researcher decided to revise the plan and continued to the next cycle.

2. Cycle 2

There were several problems dealing with the students' critical thinking and class climate needed to be solved in the second cycle. To minimize the students' problem in expressing appropriate evidence for their arguments, the student would be asked to optimize collaborative learning; therefore, the clever students could assist the others for understanding and solutions to their learning. To minimize the problem of the students' ability in stating point of view, there would be more exercises on writing analytical exposition. To minimize the noise of some students, the teacher frequently monitored them.

Teaching and learning process in the first meeting of second cycle could run effectively. The implementation of collaborative learning assisted the students to express evidence in order to support their appropriate arguments. Their arguments were also more knowledgeable with more supporting facts added. From the observation in the second meeting, it could be inferred generally that the students had been able to see their alternative point of view well. They demonstrated more confident in expressing their arguments in writing and provided longer reason to their assumptions. The third meeting was used for post test. When the process of writing occurred, most students could focus on what they should do in writing analytical exposition. In the fourth meeting,

the researcher asked the students to check their friends' worksheets in post test 2. They should analyze their friends' writing based on the indicators of critical thinking. Here, a class discussion was practiced. It was helpful for the students since it provided equal chance for them to give their contributions.

The observation of cycle 2 revealed that having implemented Collaborative Learning several times, the students had fewer difficulties in exploring ideas to write analytical exposition. The students who got difficulties in putting down the facts and evidence for their arguments could eliminate the problem. Collaborative learning also assisted the students to express their awareness in stating explanations for their point of view. These enhancements were supported by the mean score of the post test in the second cycle. In that test, the students got 81.67. It was better than the mean score of the first cycle that was only 71.15. The table showed the enhancement of students' score from post-test 1 to post test 2

Table 1. The Enhancement of Students' Critical Thinking

Aspect of Critical Thinking	Max. Score	Post-Test 1	%	Post-Test 2	%	Enhancement (%)
Argument	30	20.97	69.90	24.07	80.23	10.33
Evidence	20	14.63	48.77	18.31	61.03	12.27
Point of view	20	13.24	44.13	15.02	75.10	30.97
Conclusion	30	22.31	74.37	24.27	80.90	6.53

Compared to the class climate before the second cycle, there were some positive progresses. The implementation of Collaborative Learning demanded responsibility, persistence and sensitivity for the students to participate and grow. It was able to move students toward a more active-learning environment which was more enjoyable and effective for the students alike. They became aware of what the lesson was about and paid attention to the lesson than minded their own business in the class. The result of the comparison between situation in cycle 1 and cycle 2 could be seen in the table:

Table 2. The Comparison Between the Situation in Cycle 1 and Cycle 2

Indicators	Cycle 1	Cycle 2
a. No one of the students was busy with themselves	Most of the students paid more attention to the lecturer's explanation	There was no students minding their own business when the lecturer explained something
b. The students were involved actively in discussing the materials	Some students were more involved in the teaching and learning process	Most students were motivated to join the activity in the class.
c. The students' responsibility increased	Most students involving in groups worked together to solve some problems and to complete tasks.	All students had responsibility ` to participate in groups and worked together to create tasks.
d. The students' self confidence improved.	The students' self confidence to expose multiple arguments and clear conclusion improved	The students' self confidence to express appropriate argument, more evidence, alternative point of view, and proper conclusion increased well

The result of cycle 2 revealed that having been implemented Collaborative Learning several times, the students' level of critical thinking increased. The students gained the inspiration as well as the knowledge from absorbing their friends' thought. The more the students shared knowledge, the more they obtained the information. Collaborative learning also gave the students chance to learn more from the student who is expert on something. Working in group meant getting other students' ideas united together. Every member of the groups had something unique that he/she could contribute. When it came to overcome a problem, the other member might be able to think more that the one individual might not have on his/her own. It was able to support the students to view the emerging ideas critically and freedom of expressing own thoughts.

The action research which implemented Collaborative Learning has yielded some enhancements on the students' critical thinking and in classroom climate. The finding then could be categorized into

two major points as follows: (1) the implementation of Collaborative Learning could enhance the students' critical thinking; and (2) the implementation of Collaborative Learning could enhance class room climate. It was essential for the students to be able to explore their mind. They had to be able to express their arguments or opinions in order to be critical thinker since this affected the students' belief in term of making decision, point of view, and also their actions to overcome writing problem.

Proponent of Collaborative Learning claimed that the active exchange of ideas within small groups not only increased interest among the participants but also promoted critical thinking. There was persuasive evidence that cooperative teams achieved at a higher level of thought and retained information longer than students who worked quietly as individual. The shared learning gave students an opportunity to engage in discussion, took responsibility for their own learning, and became critical thinkers.¹⁴ Students needed to be able to think creatively, solve problems, and make decision as a team.

The Collaborative Learning was able to enhance either the students' level responsibility or participation. The concept of Collaborative Learning, the grouping and pairing of the students for the purpose of achieving an academic goal, had been widely researched and advocated throughout the professional literature. The term " Collaborative Learning" referred to an instruction method in which students at various performance levels worked together in small groups toward common goal. The students are responsible for one another's learning as well as their own. Thus, the success of one student helped another student to be successful.¹⁵

The strength of the implementation Collaborative Learning was that it raised the students' attention as well as self confidence. Students improved in their oral communication skills with member of the peer group. Students who cooperated with each other tended to understand each other. When students' work is valued by team member, their individual confidence and respect escalated dramatically.¹⁶ Since there was the implementation of Collaborative

¹⁴ D. W Johnson, R. T Johnson, & E. J. Holubec, *Circles of learning: Cooperation in the classroom*, (Edina, MN: Interaction Book Company, 2001).

¹⁵ Anuradha Gokhale, "Collaborative Learning Enhances Critical Thinking", *Journal of Technology Education*, Vol. 1 No.07,2015, p. 38-41.

Learning to write analytical exposition, the classroom climate could show better progress than the previous one.

E. Conclusion And Suggestion

Based on the research findings, it can be summed up that the implementation of Collaborative Learning can enhance the students' critical thinking to write analytical exposition. This enhancement is proven by the increase of the mean score of the post-test in cycle 1 and cycle 2. The findings are: (1) the students are able to express relevant argument; (2) the students have fewer difficulties in exploring evidence, fact, or reason to support their arguments; (3) the students are able to apply the multiply point of view to persuade the readers; and (4) students can draw appropriate conclusion.

In addition, Collaborative Learning can enhance the class climate including: the students' attention to the teaching and learning process was getting better, the students got more alive condition, their responsibility to involve in groups to solve the problems in writing enhances, and their self confidence to express their ideas also improves. Collaborative Learning appears to result in more positive effects for students as reflected in improved academic achievement. It is able to increase both students' critical thinking and students' learning achievement, and also encourage students' participation in learning.

Generally, the implementation of Collaborative Learning can enhance the students' critical thinking and the class climate during the teaching and learning process. Somehow, Collaborative Learning is not the only thing that can enhance college students' critical thinking. It should be supported by the other things, such as the lecturer's role in the class and the student's activeness in order to achieve the maximum result of the students' critical thinking to write the text.

The English lecturer should create an enjoyable learning activity in which the students are provided plenty opportunities to explore their ideas and to derive knowledge and information. This way, the students will learn more to be critical in thinking. The lecturers can also implement various methods in teaching writing in order to maintain the students' interest toward the lesson. For the students, Collaborative Learning assists the students to develop multiple arguments. The multiple ideas can encourage the students' deeper

thinking. Thus, it will improve their critical thinking as they improve their writing skill. Listening to another student's idea will also facilitate them to find out more knowledge. For the others researcher, it is expected that the result of this study can be used as additional reference for further research conducted in the future in order to create a better teaching learning process. Future research studies also need to observe the group members: heterogeneous versus homogeneous and structure of collaborative.

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