
The Application of Clustering Technique in Teaching Essay Writing to the Students of English Study Program of Riau University

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ABSTRACT

This study aimed to improve the learning process in essay writing by applying clustering techniques. There were 29 students as the subject of this study. The design of the research was One Group Pretest-Posttest. The results of pre - test showed that the students' ability in essay writing was low, only 6.89% of students got good grade, 51.72% got average and, 41.37% of students got low. After applying the clustering technique plus feedback, the learning outcomes was very significant. The percentage of students who obtained excellent score was 13.79%, 72.41% was in the good category, 13.79% in the enough category, and no more students got less or failed category. This result showed that the clustering technique plus feedback is worth considering to use in learning writing.

Keywords: Essay, Clustering Technique, Feedback, Learning Outcomes

Introduction

The variety of instructional models offered by the expert of learning methods, has made the learning implementation more effective, creative, innovative and fun. Meanwhile, effective learning implementation is always demanded from lecturers. Based on the results of previous research showed, that writing still demands the creativity of lecturer in the learning process, guiding the students to produce paragraph or essay academically.

Writing or deciphering what is thought, believed, understood about one thing is not easy. For some non-English students, expressing ideas, even expressing topics that have been determined by either lecturer or students themselves in paragraph or essay form is still the most difficult. The observations made on previous writing

studies showed that students still need motivation and stimulus to produce a paragraph or essay.

Unlike other language skills, writing skills learning requires a stimulus that enables students to write well and correctly, according to academic writing demands, to produce a paragraph or essay. Stimulus in question can be obtained from students themselves, lecturers, partners, discussion groups, as well as on the learning process undertaken. In the previous learning process, the lecturers were not fully motivated the students to write well and correctly.

As for the implementation of the stimulus that is done in essay writing, there are several stages to produce good essay: pre writing stage, focusing ideas stage, evaluating, structuring, and editing phase.

In the pre-writing stage, there will be brainstorming, planning, generating ideas, questioning, discussion and debate. In the stage of focusing ideas there will be fast writing, group compositions, and changing viewpoints. While the last stage is the stage of evaluating, structuring and editing. Of these three stages, the prewriting stage is a stage that desperately needs a stimulus to do, because in this stage students begin to think about the idea, as well as plotting the idea into a written text, breaking down the idea into complete and meaningful written text. Beginning with brainstorming to write the initial idea, can be done with clustering technique.

Clustering technique is a prewriting technique that allows students to explore ideas in the form of words or phrases, in which words or phrases are visualized in the form of small circles on a given topic. Students will give the idea freely, without thinking of the standard grammar on the topic of words or phrases as much as they can. The next step is to eliminate the word or phrase, so that the word or phrase that lives is a word or phrase that is closely related to the existing topic. This clustering technique is very helpful in guiding students to write text, which in writing students are required to develop each paragraph well. The development of good paragraphs will not work if prewriting is not done well. Considering that argumentative essay is a difficult essay category, then in prewriting stage it is deemed necessary to provide feedback before reaching the essay writing stage.

Literature Review

In writing skills, the writer should be able to express the expression of feelings, intentions or ideas into writing. Writing

also requires a process or stages in practice, in order to produce good and correct writing. According to Coulmas (2003), there are six meanings of writing, namely: (1) a system of recording language by means of visible or tactile marks; (2) the activity of putting such a system to use; (3) the result of such activity, a text; (4) the particular form of such a result, the style script such as block letter writing; (5) artistic composition; (6) a professional occupation.

Meanwhile Nowacek (2011) stated that writing is very important. Nowacek states that : Writing is the primary basis upon which your work, learning, and your intellect will be judged-in college, in the workplace, and in the community; Writing expresses who you are as a person; Writing is portable and permanent. It makes your thinking visible; Writing helps you move easily among facts, inferences, and opinions without getting confused and without confusing your reader Writing promotes your ability to pose worthwhile questions; Writing fosters your ability to explain a complex position to readers, and to yourself; Writing helps others give you feedback; Writing helps you refine your ideas when you give others feedback; Writing requires that you anticipate your readers' needs. Your ability to do so demonstrates your intellectual flexibility and maturity; Writing ideas down preserves them so that you can reflect upon them later; Writing out your ideas permits you to evaluate the adequacy of your argument; Writing stimulates you to extend a line of thought beyond your first impressions or gut responses; Writing helps you understand how truth is established in a given discipline; Writing is an essential job skill.

In fact, students often have difficulty in starting writing. This is because they do not know what they will write. Tyler (2006) suggests that starting writing can start with a few simple questions, namely, who, what, when, where, how and why. That is, the author should know to whom the writing is addressed, what interesting things will be written, whether the topic will be proposed last time or in the future. Furthermore, where the required information is obtained, so that the topic to be discussed can be more focused, detailed but limited. The last part is how to pour all the information gained into writing interesting and useful to the reader.

Writing paragraphs or essays is a skill that requires a lot of practice. Writing also requires a process, starting with thinking of what ideas or things to write, then developing / pouring / explaining the idea into a supporting sentence or paragraph, and ending with a sentence or a closing paragraph. Further, Langan (2001) states that there are 4 principles of writing that must be understood: (1) start with a clearly stated point; (2) provide logical, detailed support for your point; (3) organize and connect your supporting material; (4) revise and edit so that your sentences are effective and error-free.

According to Hefferman (1986), writing well and correctly, should include the correct application of grammar, the sensitivity of ideas in writing, and have a sense of art in stringing words, phrases, sentences, and paragraphs. In conveying ideas or ideas the author should pour it into a paragraph or set of paragraphs called essays. As Smalley, et al. (2001) states that essays are formal writings that have a central idea consisting of introductory paragraphs, developmental paragraphs, and conclusion paragraphs. Next Smalley, et al.

states that the function of the Introductory paragraph is to express the thesis statement (topic sentence) and to explain the topic to be discussed; Developmental paragraphs are explanatory paragraphs of a topic that may consist of causes, effects, reasons, examples, processes, classifications, or points of comparison and contrast; While the conclusion paragraph is a paragraph that sums up the preceding description. All of the above requires a strategy or learning technique to arrive at the results or write a good and true essay.

Writing essay according to Nursisto (1999) in Susanto, has five different texts, namely, narrative, descriptive, exposition, persuasion and argumentation. Although there are five varieties of text, in writing, almost nothing is really pure. In writing of narrative texts, for example, there may be elements of exposition or description. Similarly, the writing of argumentation, which is writing wants to influence the reader with evidence of evidence or strong argument, where the evidence or argument must be explained first. The section describing is called an exposition.

Further Keraf in Aprianti (2013) states that the characteristics of a good argumentation are: (1) explaining the opinion for the reader to be sure; (2) require facts to prove in the form of images / graphs, and others; (3) Exploring the source of ideas from observation, and research; (4) Concluding remarks.

Furthermore Pardiyo (2007) stated that the written texts will consist of communicative purpose, rhetorical structure, and grammatical patterns. It can be interpreted that each kind of essay has a different text organizational pattern, although in general the essay will consist of introduction, body of paragraphs, and conclusion. In argumentative text for

example, will consist of: 1. Introduction: the first paragraph is the introductory paragraph. It introduces the problem and gives the background information necessary for the argument and the thesis statement; 2. Body: The body paragraphs contain the reasons. Each paragraph talks about one reason. The reason is stated in the topic sentence and is supplied by supporting details or materials. These supporting materials can be either examples, statistics, personal experiences, or quotations; 3. Conclusion: The conclusion restates the main claim, and present one or two general statements which accurately summarize the arguments which support the main premise. (<http://learnenglishessay.blogspot.co.id/2011/12/argumentative-essay.html>)

Organizing essays as above requires steps to arrive at a complete essay writing. Tangpermpoon (2008) put forward the steps of essay writing as follows: (1) Prewriting. Teachers will provide a writing task and help them to generate vocabulary and ideas by brainstorming, clustering, and discussion, without concern for correctness or appropriateness in the first stage of writing; (2) First draft composing. Learners will use vocabulary and ideas which they have got from the previous stage to express what they want to convey their writing; (3) Feedback. In this writing stage, learners will receive comments from real audiences which can be a writing teacher or their peers and move to new ideas in another draft; (4) Second draft writing. Based on the comments of teachers and peers, learners will modify their previous draft by revising, adding, and rearranging ideas; (5) Proofreading. In the final stage, student writers will be able to express their ideas in writing but also focus on the appropriate use

of vocabulary, layout, grammar, and mechanics.

As revealed by Tangpermpoon above, the first step in writing essays is prewriting which at this stage can be done with various techniques, one of which is the application of clustering techniques. Clustering technique is a technique used to develop an essay topic that already exists. Clustering techniques are used to facilitate the ability to develop a given topic. Furthermore Hogue (1996) states that: Clustering like listing is another way to get them in circle or bubbles, around the topic. Based on this statement, clustering is the writing technique to develop their ideas (learners) and write the words or phrases in circles or bubbles.

Other opinions that support Hogue's statement come from Dawson and Essid stating that:

clustering is a type of prewriting that allows learners to explore many ideas as soon as they happen to the learners. Like brainstorming or free associating, clustering allows learners to begin without clear ideas. clustering can explore many ideas from mind. It is a good way to develop ideas before starting the writing activity. The learners can do it on their own or with friends or classmates to try to find inspiration or ideas.

Reid (1993) also supports the statements of Dawson and Essid which state that:

The invention of clustering helps writers to generate, develop, and arrange their ideas. It can be said that clustering helps the learners in developing their idea. The goal of clustering is to determine the intrinsic grouping of a set of unlabeled data. It can be shown that there is no absolute "best" criterion which would be independent of the final aim of the clustering.

Consequently, it is used to supply this criterion, in the way that the result of the clustering will suit their needs. (www.homedei.polimi.it/matteucc/clustering/tutorial.html).

Based on the above statements it can be concluded that clustering techniques coupled with the giving of feedback helps stimulate / generate ideas and design the idea into writing the type of essay targeted / selected. The type of essay targeted in this research is argumentative essay type. Argumentative essay is an essay type that requires investigation of selected topics, proving by collecting data where the author briefly exposes it. Fitzpatrick (2005) states that, in writing argumentative essay you have to persuade your audience to consider your point of view, even if they may disagree with it. This requires some care and skill: You need to show respect for opposing points of view, you must choose vocabulary carefully, and above all, you must write clearly and logically. That is, the author of the argumentative essay should be able to convince the reader with what he describes even if the reader does not agree with the arguments proposed by the author. Fitzpatrick further argues that putting forward a logical argument begins with defining and limiting the topics to be discussed. In this case there are four things

that proposed Fitzpatrick, namely: (1) Define the topic. Some topics require definition; (2) Limit the topic. Some argumentative topics Require limiting; (3) Analyze the topic. Before you decide upon a point of view, you should analyze the issue thoroughly. Most argumentative topics have two points of view, for and against, and can be stated as yes / no question; (4) Write a thesis statement. The thesis statement of an argumentative essay must contain an opinion.

In this study, in addition to the application of clustering techniques, the provision of feedback is the focus that support the clustering technique. According to Keh (1990), feedback is input in the form of comments, suggestions, and information provided by the reader to the author to revise his writings. Through the feedback given, the author will improve the writing to avoid misleading, or make the reader confused with not supporting the topic with a good idea of supporting ideas, organizing less logical essays, ideas that are still less developed, and the use of grammatical or less appropriate word election.

To see the student progress in argumentative writing, done by applying Grading Rubric, which was presented by Arizona Western College as shown in Table 1.below:

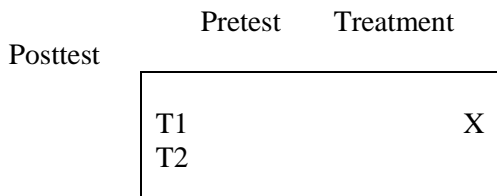
Tabel Grading Rubric: Argumentative Research Essay. Points (poss. 25 per section)

Focus	<ul style="list-style-type: none"> • Thesis is stated in specific, clear terms and maintained throughout essay. • Paragraphs are unified by a main idea and cohere as distinct units. • Topic sentences are used to maintain focus. • Author limits the content to a manageable scope. 	25
Development/Support	<ul style="list-style-type: none"> • Points are developed and “tied-in” with the essay’s thesis. • Points are supported with specific examples. • Ideas are “fleshed out” fully. 	25

	<ul style="list-style-type: none"> • Necessary context is provided for reader comprehension. • Source materials are integrated effectively and meaningfully into the author’s argument. 	
Organization/ Structure	<ul style="list-style-type: none"> • A clear principle of organization is employed and maintained throughout essay. • Essay is structured in manner that maximizes the overall purpose and effect. • Effective transitions connect separate ideas and events. 	25
Style/ Conventions	<ul style="list-style-type: none"> • Essay is free of sentence fragments, comma splices, and run-on sentences. • Verb tense is consistent throughout. • Pronouns refer to clear antecedents and are used correctly in terms of person, case, and number. • Most sentences are constructed in active voice. • Sentences are clear and concise, avoiding unnecessary wordiness. • Essay adheres to standard written English. • Essay meets prescribed requirements, including word count and outside source requirements. • MLA format is employed correctly for in-text citations and works cited list. 	25

Methodology

The research subjects were students who took writing course in odd semester of 2015/2016 which amounted to 29 students. The study was conducted for one semester (6 months). This study uses learning tools consisting of RPP, Instructional Materials, and Learning Media, taken from several learning sources, such as books and internet. The design of this study using experimental design, namely One Group Pretest-Posttest Design as it shown in the following table.



The implementation of the procedure is as follows:

(1) Implement Pretest, to measure learning outcomes prior to application of clustering techniques.

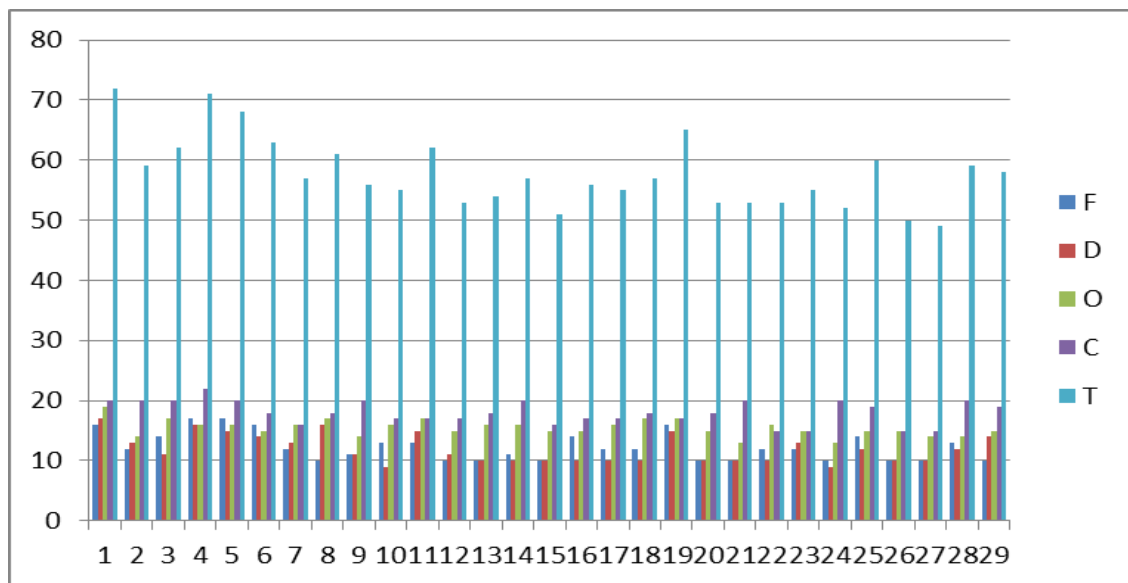
(2) Applying clustering techniques to Argumentative Essay Writing in 8 x meetings as follows:

- Lecturers provide handouts and a full explanation of the Argumentative Essay.
- The lecturer explains the clustering technique.
- Lecturers provide topics to students.
- Lecturers divide students into groups
- Lecturers give each group a chance to discuss the topic.
- Lecturers give feedback to each group or individual, to create thesis statement and introductory paragraph.
- After the student understands the feedback given, the lecturer gives individual students the opportunity to

- continue writing an argumentative essay.
- (3) After the application of clustering technique will be subject to T2, ie Posttest, to measure learning outcomes after subject to treatment.
 - (4) Comparing T1 and T2 to determine the differences that arise, if they exist, as a result of the application of treatment to students.
 - (5) T1 and T2 are implemented by using Grading rubric for argumentative essay writing.
 - (6) Applying statistical tests, in this case t test, to see if there are significant differences in value gains, after application of clustering techniques.

The Pre-test is done before the application of clustering technique implemented. The Pretest aimed to see students' early ability to write essays. Pre-test results showed that the initial writing ability of the essay was still low, even though the students have received the first writing and writing II courses before. The problems that can be seen in the results of this pretest were the writing of the thesis statement, topic development and organizing paragraphs. While in the Grammar and Mechanic have already good, although it still needs to be improved. The students' percentage in the pretest can be seen as: 6.89% was in good score, 51.72% was in enough score, 41.37% was in less score. The elements of students weaknesses in essay writing can be seen in the graph, which corresponds to the elements of the proposed by Arizona Western College as follows:

The Result and Discussion



Information:

- F = Thesis is stated in specific, clear terms and maintained throughout the essay, etc.
- D = Points are developed and "tied-in" with the essay's thesis, etc.

- O = A clear principle of organization is employed and maintained throughout the essay, etc.
- C = Essay is free of sentence fragments, comma splices, and run-on sentences, etc.
- T = Total score obtained by the student.

From the graph above, it can be seen the weaknesses of students in writing essays. The biggest weakness done by students is in element F (making strong thesis statement), followed by development of thesis statement and organization. The use of structure and punctuation is at a good

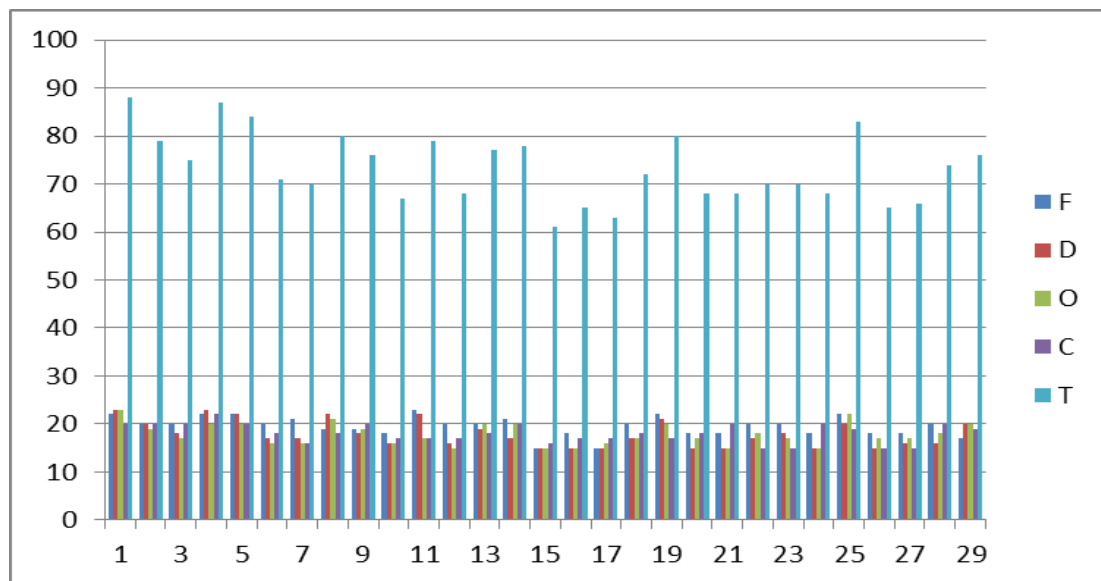
level, but still needs to be upgraded to very good level.

Furthermore, statistically the highest pretest score was 72 and the lowest was 49, with range of 23. The mean score of pretest obtained by students was 57.7931, with standard deviation of 5.88205. The students' average score was still low, as shown in the following table:

	N	Range	Mean	Std. Deviation
Pre Test	29	23,00	57,7931	5,88205

The weakness found in pretest is attempted to improve by applying clustering techniques coupled with feedback. After 8 times meeting done by applying clustering technique, the posttest done, to see the results of treatment performed. The posttest results

showed 13.79% students score in very well level, 72.41% of students got good grades, and 13.79% of students got enough score. The learning outcomes of elemental argumentative elements also improved as seen in the following figure:



Information:

F = Thesis is stated in specific, clear terms and maintained throughout the essay, etc.

D = Points are developed and "tied-in" with the essay's thesis, etc.

O = A clear principle of organization is employed and maintained throughout the essay, etc.

C = Essay is free of sentence fragments, comma splices, and run-on sentences, etc.

T = Total score obtained by the student.

Statistically, the highest average post test result was 88 and the lowest is 61, with the average score is 73, 3793, and standard

deviation of 7.22305. The average value obtained in this Posttest based on statistics can be seen in the following table:

	N	Range	Mean	Std. Deviation
Post Test	29	27,00	73,3793	7,22305

If the results of the Pretests compared with the Posttest, there was a significant increase in student scores as shown in the following table:

	Mean	Std. Deviation	N
Pre Test	57,7931	5,88205	29
Post Test	73,3793	7,22305	29

From the average comparison of posttest and pretest results, we can calculate T test to see whether the application of clustering technique in essay writing has an effect on value earning. The calculation to obtain T test is as follows.

$$\begin{aligned}
 SD_{bm} &= \sqrt{\left[\frac{SD_1^2}{N1 - 1} \right] + \left[\frac{SD_2^2}{N2 - 1} \right]} \\
 &= \sqrt{\frac{(5.8)^2}{28} + \frac{(7.2)^2}{28}} \\
 &= \frac{33.64}{28} \\
 &= \sqrt{1.2014 + 1.8514} \\
 &= \sqrt{3.0528} \\
 &= 1.7472 \\
 T \text{ test} &= \frac{73.3 - 57.7}{1.7472} \\
 &= 8.9 \\
 T \text{ test} &= 8.9 \\
 T \text{ tab } 56 (0,01) &= 2,65
 \end{aligned}$$

T test > T tab with 1% confidence level then it can be concluded that there was a significant improvement in learning outcomes by using clustering techniques coupled with feedback.

CONCLUSIONS

Based on the results of the research, we obtained the comparison of learning before and after applying clustering technique coupled with the provision of feedback. The score of pretest and posttest showed the significant improvement. In pretest, no students got very good score, but in posttest there were 13.79% of students got very good score. In pretest, 6.89% of students got good grades, in posttest there were 72.41% get good score. Furthermore, in pretest the percentage of students who scored quite a number of 51.72%, the posttest percentage of students who got enough value amounted to 13.79%. In the results of pretest there were 41.37% of students got less score, but no more students who got less score in posttest.

From the results of this study, learning essay writing by using clustering techniques was needed by students. This technique has made students more active in asking and discussing. Besides giving feedback by lecturers was very influential to the writing that will be made. The influence is caused by three things done by the lecturer, as stated by LeVan and Marissa King (2016) namely: Appreciation. to see, acknowledge, give credit or thank; Coaching. to help the receiver fine tune skills, tweak understanding, increase knowledge, improve, or to adress the giver's feelings or a sense of relationship;

and Evaluation; to score against expectations to form decision making.

Overall this clustering technique is feasible to be used in learning writing. Further, if we examined, the acquisition of individual score in the category of very good still need to be increased. So we need further research for teaching writing by using clustering technique, but with the learning steps modified in accordance with the character of the students who take the course, or with other techniques that can improve the ability of individual students in writing courses.

References

- Aprianti, Diana. 2013. *Ciri ciri dari Narasi, Deskripsi, Eksposisi, Argumentasi, dan Persuasi*. diana-aprianti.blogspot.co.id.
- Arikunto, Suharsimi. *Dasar-dasar Evaluasi Pendidikan*. Jakarta: Bumi Aksara.
- Brown, H. Douglas. 2010. *Language Assessment*. 2nd. Edition. New York: Pearson Education, Inc.
- Claudia L. Keh. *Feedback in the Writing Process: A model and methods for implementation*. ELT Journal. Vol. 44/ 4 October 1990. Oxford University Press.
- Coulmas, Florian. 2003. *Writing Systems*. Cambridge: Cambridge University Press.
- Dawson and Essid. 2009. <http://www.writing2.richmond.edu/writing/web/cluster.html>-4k accessed on December 7th.
- Fitzpatrick, Mary. 2005. *Engaging Writing*. New York: Pearson Education, Inc.
- Faculty Focus. 14 November 2016. (email.magnapubs.com/why-students-reject-feedback)
- (<http://assets.cambridge.org/97805217/82173/sample/9780521782173ws.pdf>).
- (<http://learnenglishessay.blogspot.co.id/2011/12/argumentative-essay.html>)
- Langan, John. 2001. *English Skills*. Singapore: McGraw-Hill International Edition.
- LeVan, Karen Sheriff and Marissa E. King. *Teaching Students How to Manage Feedback*.
- Nowacek. 2011. http://www.marquette.edu/wac/What_Makes_Writing_So_Important.shtml
- Pardiyono. 2007. *Pasti Bisa! Teaching-Genre Based Writing*. Yogyakarta: CV. Andi Offset.
- Reid. 1993. www.homedei.polimi.it/matteuc/clustering/tutorial.html
- QUT write. 2008. *Patterns of essay organisation*. www.citewrite.qut.edu.au.
- Thanatkun Tangpermpoon. *Integrated Approaches to Improve Students Writing Skills for English Major Students*. ABAC Journal Vol.28, No.2 (May-August 2008, pp. 1-9)
- Tyler, 2006. (http://www.mywritingassistant.com/writing_purpose_essay.html)