Using Concept Mapping
to Improve the Writing Ability of the Eight Graders

Kalsum Maloho
MTs. PKP Manado
kalsumqway@yahoo.com

Abstract

This study - which is classroom action research in nature - was intended to develop concept mapping strategy to improve the writing ability of the eighth grade students. The subjects of this study were twenty students (Class VIII-B) of MTs PKP Manado, North Sulawesi in the academic year 2015-2016. This study was conducted in two cycles through some procedures: planning the action, implementing the action, observing the implementation, and reflecting the action. The data of the study were gathered using portfolio, observation checklist and field notes. The findings of the study indicated that concept mapping was successful in improving the students' writing ability. The improvement could be seen from the increase of the students' mean scores and the students' involvement in writing activities. The mean scores obtained by the students in the two cycles were shown by the results of portfolios. While the students' involvement in writing activities in the two cycles were shown by the observations checklists and field notes. From the findings, it can be inferred that concept mapping is not only effective in improving the writing ability of the students but also in enhancing their involvement in writing activities, particularly in generating and organizing their ideas.

Key words: *concept mapping, writing ability*

1. Introduction

Writing as one of the four language skills plays an important role in the context of teaching English as a foreign language. Hyland (2003) views that writing is a way of sharing personal meanings and it emphasizes the power of the personality to construct someone's view based on a certain topic. This means that expression of ideas of a certain topic can be

done through a written form. In line with Hyland (2003), Spratt (2005) states that writing is communicating a particular message in a written form.

Compared to speaking, writing is more difficult because the typical characteristics of written language are more complex than those of spoken language (Nunan, 1991:85). The complexities lie on the use of standard language and the degree of formality. Moreover, in writing, we have to pay attention to higher level skills of planning and organizing as well as lower levels skills of spelling, punctuation and word choice (Richard, 2002:303). In writing, the writer should also think about the essential element such as the audience, the tone and the goal of writing itself (Cooper & Patton, 2004).

It is stated in the 2006 School Based Curriculum; writing is one of the language skills that must be taught at junior high school/Islamic junior high school (SMP/MTs). The teaching of writing aims at enabling students to master the functional texts and monologue texts or paragraphs in the form of descriptive, narrative, recount, procedure, and report (Depdiknas, 2006). The work of writing is presented in the form of text types, usually known as genres, which are closely related to the purpose of each type. The text type of short functional texts, descriptive and procedure are taught at the seven grade; descriptive, recount and narrative are taught at the eighth grade; and procedure, report and narrative are taught at the nine grade.

There are some problems that underline the unsatisfactory result of students' writing. First, the students did not have idea to write. Second, the students had difficulty how to make the writing relevant to the topic. Third, they had poor ability in writing especially how to choose the words. Those factors, I believe, constitute the reason why their result of paragraph writing task has not achieved yet.

To solve the crucial problems that are faced by the students above, there is an urgent need to implement a strategy or technique. There are many alternative strategies to engage students in writing activities. One of which is concept mapping. This strategy is expected to give alternatives when dealing with students' problem in writing and overcome boredom in the writing class activities.

Concept mapping refers to mind mapping which can help students to generate and organize their ideas in writing. Buehl (2001:41) states that concept mapping is an excellent strategy for teaching that helps enrich a students' understanding of a word or concept. It can

be used as a technique or strategy in teaching writing descriptive paragraph. It is also an easy way for the students to remember what has been learnt; so, they can generate and organize the ideas related to the topic and they love to begin to write a descriptive paragraph. This means that concept mapping is a potential alternative solution to help the students write.

2. Method

The design in this study was a collaborative classroom action research (CAR) since this study was focused on the teaching and learning activities in the classroom. It was intended to improve the writing ability of the students using concept mapping. This classroom action research was conducted through the following procedures: a preliminary study or reconnaissance prior to analyzing and identifying problems as the preparation, followed by action planning, plan implementing, observing and reflecting as a real cycling action (see Figure 3.2). The procedures adapted from Kemmis and McTaggart (2000:595) cited in Koshy, (2007:4) consist of four stages: planning, implementing, observing and reflecting.
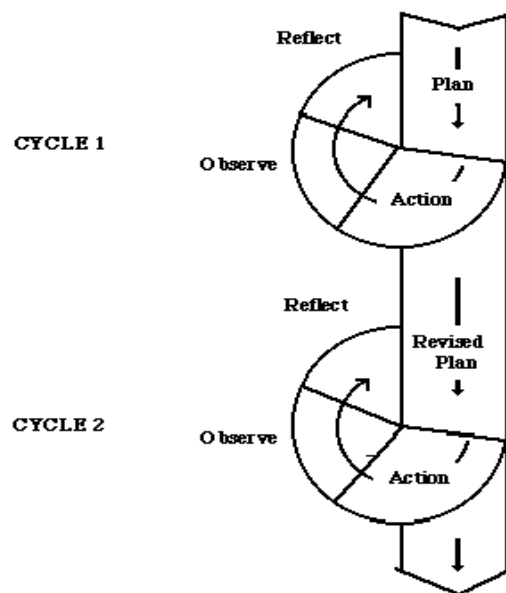

Figure 1. Kemmis and McTaggart Cyclical Action Research Process cited in Koshy (2007:4)

The setting of the study was Islamic Junior High School (MTs) Pondok Karya Pembangunan Manado, located on Jl. Arie Lasut Kombos Timur Manado. The school has four classes, one class for

the seventh grade, two parallel classes for the eighth grade and one class for the ninth grade. Each of the class consists of 20 to 25 students on average. This school admits only male students to all grades. This is a boarding school where students stay in the school. This boarding school provided 4x40 minutes a week for English and 2x40 minutes for each meeting.

The subjects of the research were 20 students of the eighth grade of 2015/2016 academic year. The eighth grade students were selected based on some consideration. First, the students' writing ability was still unsatisfactory. Second, the students had difficulty in writing in terms of generating ideas, making the writing relevant to the topic, and choosing the words. Third, since there were two classes of the eighth grade, I selected grade VIIIB for the study because grade VIIIB had lower mark than grade VIIIA in writing.

In the planning stage, the researcher made a careful action preparation prior to the implementation of the action based on the result of the preliminary study. The preparation consisted of designing a suitable model of concept mapping and the lesson plan for teaching writing, developing the materials and media and determining the success criteria. The success criteria encompassed (1) the mean score of the students should reach 65 in their final writing in the range of 25 to 100, (2) if 70% of the students are involved in the writing activities and their involvements are in scales "Good" and "Very Good". Table 1 presents the description of the criteria of success.

Table 1
The Description of the Criteria of Success

No	Criteria of Success	Data	Sources of Data	Instruments	Procedures of Data Collection
1	The mean score of the students should achieve the score of equal to or greater than 65.	The students' final scores	The students' final products	Portfolios	Collecting the students' final products
2	70% of the students should get involved in writing activities and their involvements are in scales "Good" and "Very Good".	The students' involvement in writing activity	The students	Observation checklist and Field notes	Direct observation Taking notes Collecting the students' concept mapping

In the implementation stage, the plan regarding with the teaching and learning of writing using concept mapping was implemented after all of the preparations had been made. In implementing the action, it was decided that the researcher acted as the implementer, whereas one English teacher played a role as the observer whose job was conducting the observation during the teaching and learning process.

In the observation stage, the data gathering using writing tasks in addition to observation checklist, filed notes, and portfolios were carried out. The data gained from these instruments were used to confirm whether the success criteria were conformed or not. Besides, they were also used to identify facets of the strategy that needed to be modified in the subsequent plan. There are five components presented in the analytical scoring rubric for writing, i.e., content, organization, vocabulary, language use, and mechanics. In this study, not all components of writing were employed, but only four components such as content, organization, grammar, and vocabulary. Mechanic is important but considering the proficiency level of the students, it is better not to assess it. See Table 2.

Table 2
Analytic Scoring Rubric for Writing adapted from Weigle (2002:116)

Components of Writing	Scores	Indicators
Content	4	Relevant to the topic and easy to understand
	3	rather relevant to the topic and easy to understand
	2	relevant to the topic but is not quite easy to understand
	1	quite relevant to the topic but is not quite easy to understand
Organization	4	most of the sentences are related to the main idea
	3	some sentences are related to the main idea
	2	few sentences related to the main idea
	1	the sentences are unrelated to each other
Grammar	4	a few grammatical inaccuracies
	3	some grammatical inaccuracies
	2	numerous grammatical inaccuracies
	1	frequent grammatical inaccuracies

Vocabulary	4	a few errors in choice of words
	3	some errors in choice of words
	2	occasional errors in choice of words
	1	frequent errors in choice of words

Each components of writing are scaled in 1 – 4. Score 1 means poor, 2 fair, 3 good, and 4 very good. The maximum score is 16 (4 x 4) and the minimum score is 4 (1 x In the reflection stage, the researcher made two kinds of conclusion, the each cycle-based conclusion and the final conclusion. The conclusion of each cycle was made to determine whether or not another cycle was needed while the final conclusion was made to describe the model of teaching writing through concept mapping that had been improved.

In the reflecting stage, I made two kinds of conclusion, each cycle-based conclusion and the final conclusion. The conclusion of each cycle was made to determine whether or not another cycle was needed while the final conclusion was made to describe the model of teaching writing through concept mapping that had been improved.

3. Findings

Based on the results of the students' writing, it is found out that the students' writing ability gradually improved. This means that there was a positive impact of concept mapping on the increase of the students' ability in writing. In other words, the use of concept mapping could help them to learn for better writing. The students' mean score previously was 46.25. In Cycle 1 the mean score was 59.69 and in Cycle 2 the mean score was 69.85. The mean score of most students also improved. There were 15 out of 20 students (75%) whose mean scores improved and 5 out of 20 students (25%) whose mean scores did not improve. However, there were 8 students (40%) whose scores fluctuated from the previous mean score. Figures 4.1 presents the progress of the students' mean score from the previous mean score to Cycle 2. Thus, the following figures were discussed below.
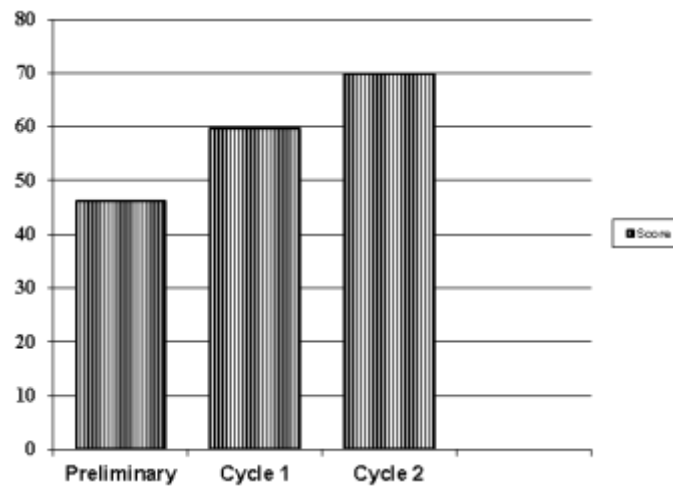
Figure 4.1 Students' Progressing Mean Scores

Figure 4.1 shows that the students' mean scores increased from preliminary study to Cycle 2. The students' mean score in preliminary study was 46.25 increased to 59.69 in Cycle 1 and 69.85 in Cycle 2. This condition revealed that in the preliminary study, 0 out of 20 students (100%) were not achieved the score equal or greater than 65. Furthermore, in Cycle 1, 8 out of 20 students (40%) achieved the score and 12 out of 20 students (60%) did not achieve the score. That means that there was 40% of the students who achieved the score equal or greater than 65. In Cycle 2, 15 out of 20 students (75%) achieved the score and 5 out of 20 students (25%) did not achieve the score. That means that there was 75% of the students achieving the score equal or greater than 65.

Figure 4.2 presents the progress of students' score in terms of content (C), organization (O), grammar (G), and vocabulary (V). Students' progress scores (group 2) from preliminary study to Cycle 2 were stated in this Figure 4.2.
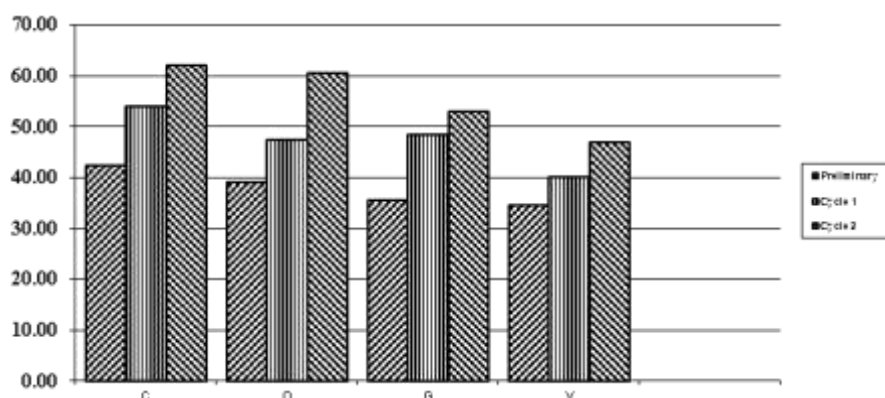

Figure 4.2 Students' Progressing Scores

Figure 4.2 shows that the students' scores were progressing from preliminary study to Cycle 2 in terms of content (42.50, 54.00, and 62.00), in terms of organization (39.00, 47.50, and 60.50), in terms of grammar (35.50, 49.50, and 53.00), and in terms of vocabulary (31.50, 40.00, and 47.00). All these mean that there was a slight improvement of the students' scores from those in the preliminary study to those in Cycle 2 in terms of content, organization, grammar, and vocabulary.

Figure 4.3 presents samples of some of the students' scores (Group 2) from preliminary, Cycle 1 and Cycle 2. The students' scores improved from preliminary study to Cycle 2.
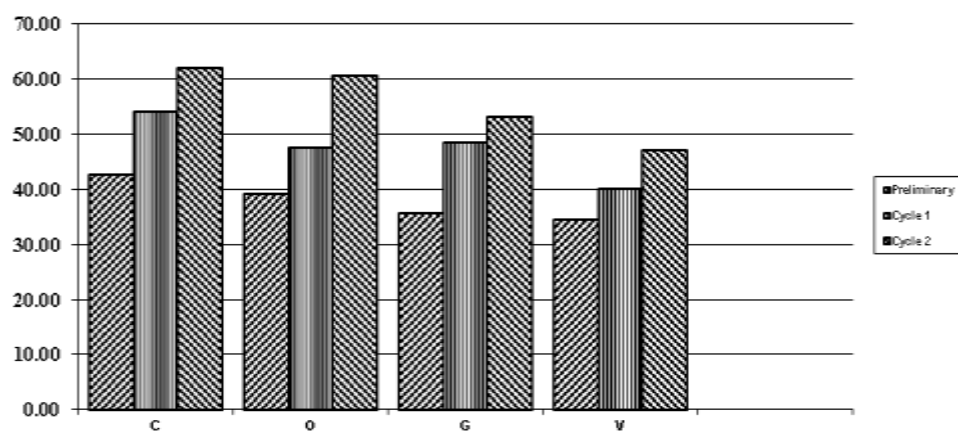

Figure 4.3 Students' score in the Preliminary Study, Cycle 1 and Cycle 2

Figure 4.3 shows the progress of the scores of students in Group 2 from the preliminary study to Cycle 2. EK's previous score was 56.25 and increased to 71.88 and 81.25 in Cycle 1 and Cycle 2, AAI's previous score was 56.25 and increased to 68.75 and 78.13 in Cycle 1 and Cycle 2, NP's previous score was 46.88 and increased to 62.50 and 68.75 in Cycle 1 and Cycle 2, and PS's previous score was 40.64 and increased to 50.00 and 62.50 in Cycle 1 and Cycle 2.

Figure 4.4 presents the percentage of the students' involvement in writing activities. The activities dealt with the students in generating their ideas through concept mapping, generating their ideas into writing descriptive paragraphs, revising the draft, editing the draft, and writing final draft.
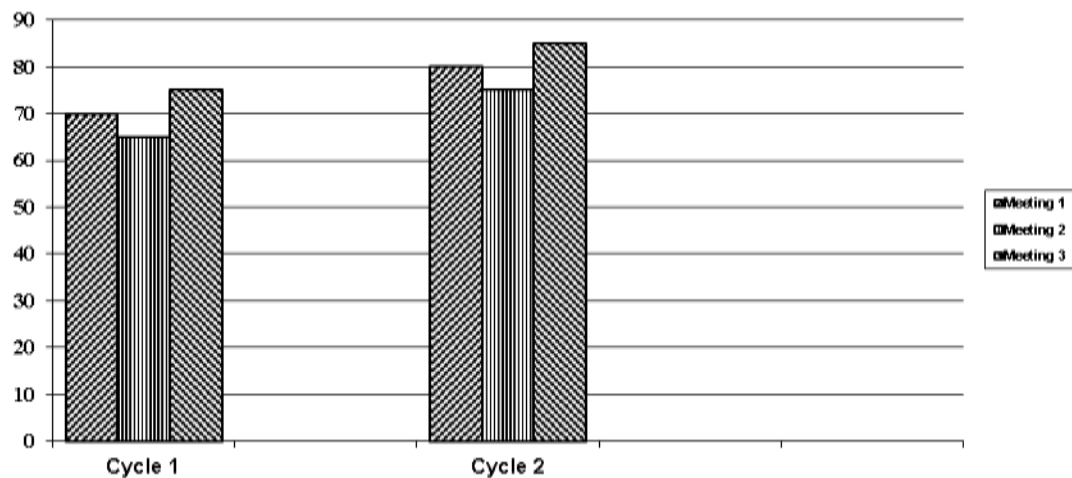
Figure 4.4 The Percentage of the Students' Involvement in Writing Activities

Figure 4.4 shows that the percentage of the students' involvement in writing activities increased from Cycle 1 to Cycle 2. In Meeting 1 of Cycle 1, 14 out of 20 students (70%) generated their ideas and 6 out of 20 students (30%) could not adequately generate their ideas. In Meeting 2, all students (100%) participated actively in organizing their ideas. However, 13 out of 20 students (65%) could organize their ideas correctly in terms of organization and 7 out of 20 students (35%) could not organize their ideas correctly. The students also participated actively in revising their writing. In addition, Meeting 3, 15 out of 20 students (75%) participated actively in editing their writing.

In Meeting 1 of Cycle 2, 16 out of 20 students (80%) generated their ideas, while in Meeting 2, 15 out of 20 students (75%) could organize their ideas correctly in terms of organization. In Meeting 3, 17 out of 20 students (85%) participated actively in editing their writing.

In addition, the research finding yielded the final 'recipe' of the concept mapping in teaching writing. The steps of the strategy used in Cycle 2 were indeed successful in helping students improve their writing ability. Yet, they lacked one of the principles of concept mapping, namely individual accountability. Therefore, in Cycle 2 also, the principle was enhanced to the initially formulated steps from Cycle 1 that finally resulted in the final steps that included the following steps. First, the teacher asked leading questions to the students. Second, the teacher connected the topic with the students' background knowledge. Third, the teacher introduced the topic and explains the instructional objectives. Fourth, the teacher showed a picture related to the topic by sticking it on the whiteboard. Fifth, the teacher asked students to observe the picture, generate and organize their ideas through concept mapping. Sixth, the teacher informed the students about the things they should do in their groups.

Besides, the teacher clarified the task they have to do. Seventh, the teacher distributed other different picture, large paper, and different colored markers to each group. Eighth, the teacher asked the students to start writing their first draft individually. Ninth, the teacher guided the students to revise their writing in terms of content and organization and edit their writing in terms of grammar and vocabulary. Tenth, the teacher asked the students to exchange their draft to be proofread. Eleventh, the teacher asked the students to write their final draft, and last, the teacher concluded the lesson.

4. Discussion

The result of this study indicated that there was an improvement in students' mean scores from 59.69 to 69.85. The result shows the improvement as compared to the previous mean score in preliminary study. In analyzing the students' writing, the teacher scored their writing one by one on the basis of the scoring guide. The analysis was emphasized on four components of writing, namely: content, organization, grammar, and vocabulary. From the analysis in Cycle 1, it was found that the students still made some mistakes. Most of the contents of the students' writing presented some detail information, but it was not easy to understand. Most of the students organized the ideas of their writing almost clearly but no logical sequencing. Besides, they still contained some errors of grammar and they still had limited knowledge of the vocabulary in terms of how to choose the words related to the idea.

In Cycle 2, it was found that the students could write a large number of words in their descriptive paragraph. They also could produces understandable descriptive paragraphs since the paragraph had good content and organization. However, the descriptive paragraphs written by the students still had some grammatical errors even though they had good words choices, but it was not as much as the errors they made in the cycle one.

The result of this study also indicated that the students' mean score was improved in writing descriptive paragraphs using concept mapping. In Cycle 1 the students' mean score was 59.69, while in Cycle 2 the students' mean score was 69.85. This means that there was an improvement from Cycle 1 to Cycle 2 and it met the first criteria of success. In relation with students' active involved and participated, in the writing activities in cycle, 1especially in generating and organizing the ideas, there were 70% and 30% of the students, while in Cycle 2, there were 80% and 20% of the students actively involved. It means that it was successful.

5. Conclusions and Suggestions

5.1. Conclusions

Based on the research findings and discussion elaborated in the preceding topic, it is concluded that the appropriate model of concept mapping improved the writing ability of the eight graders covered the following procedures: (1) leading students to the topic by giving some questions and connecting the topic with the students' background knowledge, (2) introducing the topic and explaining the instructional objectives, (3) showing a picture related to the topic by sticking it on the whiteboard, (4) asking students to observe the picture, generate and organize their ideas through concept mapping, (5) grouping and informing students about the things they should do in their groups, (6) distributing other different funny pictures, large paper, and different color markers to each group, (7) asking students to generate their ideas through concept mapping based on the funny picture given. (8) Asking students to start writing their first draft individually, (9) guiding students to revise their writing in terms of content and organization and edit their writing in terms of grammar and vocabulary , (10) asking students to exchange their draft to be proofread, (11) asking students to write their final draft, and (12) asking students to conclude the lesson.

Concept mapping has been proven to improve the writing ability of the eight graders of MTs PKP Manado. In the first cycle of the implementation of the action, the students' mean score was improved but it did not meet the criteria of success. The mean score in Cycle 1 was only 59.69. In Cycle 2, the students' mean score was improved become 69.85. This means that the students' mean score had met the first criteria of success. Besides, the students' active involved and participated, especially in generating and organizing the ideas also improved from 70% and 30% of the students involved in the writing activity in Cycle 1 to 80% and 20% in Cycle 2.

5.2. Suggestions

In accordance with the above conclusions, some suggestions are proposed to follow up the findings. The suggestions are addressed to the English teachers and the future researchers.

Based on the implementation of concept mapping in teaching writing, it is suggested that English teachers apply concept mapping especially in teaching writing. Yet, teachers should focus on the followings aspects: how to design a suitable model of concept mapping, design the lesson plans, how to choose model texts, how to compose tasks, and allocate the time since more time is required when it

comes to low achievers. Furthermore, teachers should consider the principles of concept mapping so as to reach the expected outcomes.

Besides, it is advisable for teacher to give more and various tasks to students. The tasks can be done at home as a homework or project if the time at school is limited. More and various tasks can enrich students' knowledge and make them be more trained.

To the future teacher-researchers, particularly those who are interested in applying concept mapping in their classroom research, it is suggested that they conduct classroom action research on the use of concept mapping in teaching writing related to other text types, such as narrative, procedure or recount. Otherwise, concept mapping may be applied in other skill such as speaking or reading.

References

Anderson, M. & Anderson, K. 2003. *Text Types in English 3*. South Yarra,   Victoria: MacMillan.

Ary, D., Jacobs, L. C. & Razavieh, A. 2002. *Introduction to Research in Education* (6th ed.). Belmont: Wadsworth/Thomson Learning.

Boardman, C.A.,& Frydenberg, J. 2002. *Writing to Communicate: Paragraphs and Essay* (2nd ed.). San Francisco: Logman.com

Buehl, D. 2001. *Clasroom Strategies for Interactive Learning*. Madison: International Reading Association.

Cooper, S. & Patton, R. 2004. *Writing Logically, Thinking Critically*. Boston: Pearson Longman.

Depdiknas, 2006. *Kurikulum Tingkat Satuan Pendidikan [School Based Curriculum]*. Jakarta: Direktorat Pendidikan Dasar dan Menengah.

Hyland, K. 2003. *Second Language Writing*. J.C. Richards (Ed.). Cambridge: Cambridge University Press.

Kemmis, S. & McTaggart, R. 1998. *The Action Research Planne* (3rd ed.). Gee Long: Deakin University Press.

Mills, E.G. 2003. *Action Research A Guide for the Teacher Researcher* (2nd ed.). New Jersey: Merril prentice Hall.

Nunan, D. 1991. *Language Teaching Methodology: A Textbook for Teachers*. Englewood Cliffs: Prentice Hall.

Pusat Kurikulum (Puskur). 2006. *Standar Isi Bahasa Inggris [Content Standard for English]*. Jakarta.

Richards, J.C. 2003. *Second Language Writing*. Cambridge: Cambridge University Press.

Smalley, R.L., Reutten, M.K. & Kozyrev, O.R. 2001. *Refining Composition Skills: Rhetoric and Grammar* (5th ed.). Boston: Heinley & Heinley Publishers.

Spratt, M.P. & Williams, A. 2005. *The Teaching Knowledge Test Course*. Cambridge: Cambridge University Press.

Teo, N. 2003. *A handbook for Teacher in Science*. Singapore: Federal Publications.

Weigle, C.S. 2002. *Assessing Writing*. Cambridge: Cambridge University Press