IMPLEMENTING CONCEPT MAPPING TECHNIQUE TO IMPROVE STUDENTS' DESCRIPTIVE WRITING ABILITY

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Abstract
This Classroom Action Research aimed at investigating the implementation of Concept Mapping Technique to improve students' descriptive writing ability. The research was conducted in two cycles at SMP Negeri 21 Samarinda, with 37 seventh grade students participating. In this research, there was one teacher-researcher who implemented the technique and there were two collaborators who did the observation. The data were collected both quantitatively and qualitatively by using writing assessment, interview guide, observation sheets and field notes. The findings showed that: 1) there was an improvement in the students' descriptive writing average scores at the end of the second research cycle; 2) the implementation of the concept mapping technique was done properly by the teacher- researcher; 3) the concept mapping technique delivered through collaborative working improved the participation of the students in the teaching and learning process. Since all the criteria of success in this research were fulfilled by the end of the second cycle, it could be concluded that this classroom action research was successfully implemented and the technique proposed could very well improve the skills being targeted.

Keywords: concept mapping technique, descriptive essay, writing ability

Introduction

Writing has been regarded as a difficult skill to teach and learn both for the teachers and students in the EFL context. It is so because writing entangles several components such as mechanics, content, organization, language use, and grammar which have to be considered. As Bryne (1993) in Razmjoo (2012, p. 19) argued, writing is the most complex language skill which requires the students to have appropriate cognitive strategies, verbal information, appropriate motivation, knowledge of writing conventions, and knowledge of how to put into practice.

When talking about the process of teaching-learning writing to EFL students, EFL teachers, particularly in the Indonesian EFL context, indeed face a number of problems in the writing class. Some teachers' anecdotal experiences reported that when they asked their students to write, the ideas were less and the structure was not clear. Moreover, not all the students seemed to enjoy the writing class because they were not familiar to writing due to the less writing activity in

the English class, less motivation, or it was simply not their hobby. In a preliminary study done by Rubiyah (2014), her Junior High School students were observed to face some difficulties even in writing a simple composition, particularly in generating their ideas and developing those ideas in a logical order. Thus they felt unmotivated to learn more. This phenomenon called for a suitable technique in teaching writing. One of the techniques which might be an appropriate solution would be the 'Concept Mapping Technique (CMT)'. Therefore, in this current study, under the framework of Classroom Action Research, CMT would be implemented and its relative potential for helping students generate ideas and develop them into a composition would be further investigated.

The Theory of Concept Maps

A concept map is a way of representing relationships between ideas, images, or words in the same way that a sentence diagram represents the grammar of a sentence, a road map represents the locations of highways and towns, and a circuit diagram represents the workings of an electrical appliance. In a concept map, each word or phrase connects to another, and links back to the original idea, word, or phrase. Concept maps are a way to develop logical thinking and study skills by revealing connections and helping students see how individual ideas form a larger whole.

Furthermore, concept maps are graphical tools for organizing and representing knowledge. According to Novak and Canas (2006), there are some characteristics of concept maps: (1) they include concepts, usually enclosed in circles or boxes of some type, and relationships between concepts indicated by a connecting line linking two concepts, (2) words on the line, referred to as linking words or linking phrases, specify the relationship between the two concepts, (3) the concepts are represented in a hierarchical fashion with the most inclusive, most general concepts at the top of the map and the more specific, less general concepts arranged hierarchically below, (4) having a focus question to construct concept maps, (5) providing the context to understand some situation or event through the organization of knowledge in the form of concept map, (6) the inclusion of cross-links. These are relationships or links between concepts in different segments or domains of the concept map. Cross-links help us see how a concept in one domain of knowledge represented on the map is related to a concept in another domain shown on the map.

Furthermore, Novak and Canas (2006) add three important features of concept maps namely: (1) the hierarchical structure that is represented in a good map (2) the ability to search for and characterize new cross-links, and (3) adding the specific examples of events or objects that help to clarify the meaning of a given concept. Normally these are not included in ovals or boxes, since they are specific events or objects and do not represent concepts (see figure 1).

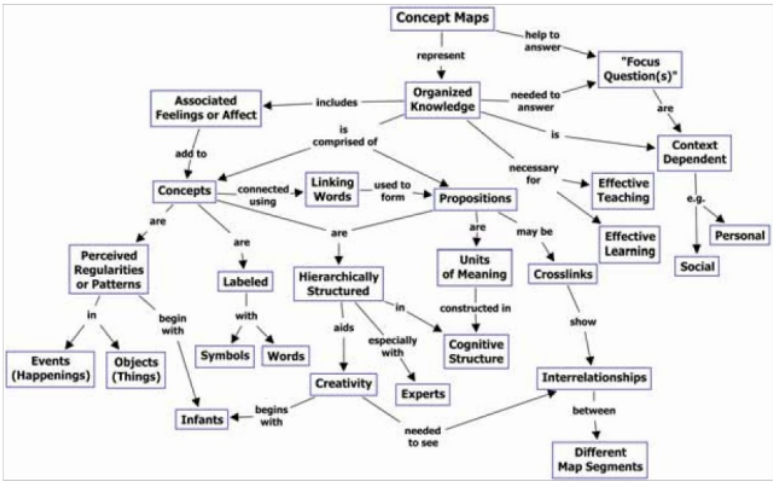

Figure 1. The Structure of A Concept Map (adopted from Novak and Canas 2006:02)

Novak and Canas (2006) define *concept* as *a perceived regularity in events or objects, or records of events or objects, designated by a label.* The label for most concepts is a word, although sometimes symbols such as + or % are used, and sometimes more than one word is used. Meanwhile, *propositions* are *statements about some object or event in the universe, either naturally occurring or constructed. Propositions contain two or more concepts connected using linking words or phrases to form a meaningful statement.* Sometimes these are called semantic units, or units of meaning.

In addition, according to Martin (2006), a concept map is a top-down diagram showing the relationships between concepts, including cross connections among concepts, and their manifestations whereas White (2011) states that a concept map presents the relationships among a set of connected concepts and ideas. It is a tangible way to display how mind "sees" a particular topic. By constructing a concept map, one reflects on what one knows and does not know. In a Concept Map, the concepts, usually represented by single words enclosed in a rectangle (box), are connected to other concept boxes by arrows. A word or brief phrase, written by the arrow, defines the relationship between the connected concepts. Major concept boxes will have lines to and from several other concept boxes generating a network.

There are four major categories of concept maps as distinguished by their different format for representing information. These categories are spider concept map, hierarchy concept map, flowchart concept map, and system concept map. In this study, the researchers would focus on hierarchy map which would be appropriate with the students' writing difficulty in expressing and generating ideas coherently.

Concept Mapping Technique

According to Brown (1994, p. 51), a technique is any of wide variety of exercises, articles or devices used in the language classroom for realizing lesson objectives. While, Freeman (2011: xi) argues that technique is the behavioral manifestation of the principles. Therefore, concept mapping can be considered as one of the techniques in teaching writing because it is a teacher's specific action carried out in the classroom to achieve the purpose expected. This is supported by Wycoff (1991) who argues that concept mapping, also known as semantic mapping, clustering, or webbing, has gradually been developed as one of the effective techniques in generating ideas for writing. In addition, Avery, Baker and Gross (1997) states that concept mapping is a graphic representation or picture of one's thoughts, ideas, and attitudes towards a key concept. A concept map presents the relationships among a set of connected concepts and ideas.

Miller (2008) proposes seven steps of implementing concept mapping technique in writing, as follows:

Step 1: Deciding the general topic which is printed in the centre of a piece of paper with a circle or square drawn around it.

Step 2: Considering ideas related to the general topic (a process called brainstorming") and writing them on a separate piece of paper.

Step 3: Selecting the words and phrases that fit in best with the general topic and support the main ideas.

Step 4: Writing these words or phrases on around the circle or square that contains the topic, circling them or drawing a square around them then connecting them to the main topic with a line.

Step 5: Repeating the process of brainstorming and branching for each of the circled subtopics until there are enough ideas and information to write about.

Step 6: Using the concept map to organize writing. Ideas which are closely connected on the concept map should be closely connected in the writing as well.

Step 7: Referring to the concept map often while writing, as it is a visual representation of the points and how they are connected.

In line with the above mentioned steps, Fahim and Rahimi (2011, p. 2) mention the following important aspects that should be considered to construct a concept map:

1. The first stage of concept map construction is specifying the main idea of the concept map together with the words indicating the concepts which should be incorporated in the concept map
2. The types of relationships between and among concepts should be specified.
3. The concepts should be arranged from the most general to the most specific.
4. The concepts which are horizontally related will be connected. The same will be done for the concepts which are hierarchically related.
5. Some connective words will be utilized to clarify the relationships.

Method

The design of this study was collaborative classroom action research (CAR), which emphasized on the cycle of meeting as teaching learning process in the

classroom. The specific objective of this research was to improve the students' ability of writing descriptive composition through concept mapping technique (CMT). This research was conducted at SMP Negeri 21 Samarinda and involved three teachers, one as the teacher- researcher and two as the collaborators. The subjects of the study were 37 seventh grader students who were previously observed to have difficulties in writing, especially in developing their ideas.

The main writing activities in the research procedures could be elaborated as follows:

Table 1. Writing Activity Procedures

Stage	Focus	Teacher's Activities	Students' Activities
Pre-writing Activities	*Activating the students' prior knowledge and introducing the technique.*	*1. Explaining to the students about descriptive writing briefly and showing an example of composition about "a person/place/thing".*	*Paying attention to teacher's explanation.*
		2. Introducing concept mapping technique (CMT) to the students.	*Paying attention to the technique introduced.*
		3. Asking the students to learn the sample descriptive text based on a concept mapping draft.	*Learning and analyzing an example of composition based on a concept mapping draft.*
		4. Dividing the students into some groups consisting of four or five.	*Forming their groups.*
		5. Asking the students to discuss and decide for an interesting topic appropriate with the theme of "describing people/place/thing".	*Discussing and deciding a topic.*
		6. Asking the students to make a list of concepts and ideas related to the topic.	*Making a list of the concepts and ideas.*
		7. Asking the students to generate the concepts and ideas into a concept mapping in hierarchy form.	*Generating the concepts and ideas into a concept mapping.*
		8. Asking the students to connect the concepts and ideas between one to another by using linking lines or	*Connecting the concepts and ideas that put in the boxes by using linking arrows.*

			arrows and giving label on them.	
Whilst-Writing Activities	*Implementing the concept mapping Technique to Improve the students' Writing Ability.*	*9.*	*Asking the students to write a descriptive composition on the basis of concept mapping made. Each students write two or more sentences in a group.*	*Writing a descriptive composition on the basis of concept mapping made.*
		10.	*Asking the students to construct the sentences into a simple descriptive composition.*	*Constructing the sentences made into a simple descriptive composition.*
		11.	*Encouraging the students to help each other, monitor, and provide assistance if necessary.*	*Helping each other in writing and constructing a descriptive composition.*
		12.	*Give feedback in terms of format, mechanic, content, organization, and grammar.*	*Asking for feedback.*
		13.	*Asking the students to revise their writing based on the feedback given by a teacher.*	*Revising their writing result based on the feedback given by the teacher.*
		14.	*Asking the students to make correction or editing.*	*Making correction or editing.*
Post-writing Activities	*Measuring the students' Descriptive Writing Ability*	*15.*	*Suggesting the students to rewrite their composition.*	*Rewriting their composition neatly and legibly.*
		16.	*Asking the students to submit their descriptive composition.*	*Submitting their descriptive composition.*

There were three particular criteria of success to be achieved in this research. The first criterion was related to the quality of implementation of concept mapping technique which would be measured through the observation of the teacher- researcher's performance done by collaborators and an interview done with selected students. This criterion of success would be deemed achieved if the teacher was rated as having a good performance all throughout the cycle and the students showed positive attitude towards the teaching learning process. The second criterion was related to the improvement in students' descriptive writing scores, which would be measured by using the school's 'Minimum Criteria of

Learning Outcome (*KKBM*), which was 75. It means that if there were more than 75 % of the students got 75, the action research conducted would be considered as successful. The last criterion was related to the students' participation, which would be measured through observation checklist and field notes. If 85% of the students were observed to be actively participating during the teaching and learning activities using concept mapping, the research could be considered as successful.

Moreover, the instruments used in this research were observation checklist (including the teacher's performance checklist and the students' participation checklist), interview guide, field note, and writing prompt sheet as well as writing assessment rubric. Before the CAR was conducted, a preliminary test was carried out. The results of the preliminary test indicated that the students had difficulties to produce descriptive composition particularly the second paragraph in the body where they should describe persons, places and things clearly. Also, the five aspects of writing were not mastered by the students. The average score of preliminary test was only 65.22, which put them into the low category.

Findings and Discussion

After the Concept Mapping Technique was implemented, the students' descriptive writing scores gradually improved. In each meeting in the two research cycles, the teacher-researcher always monitored the students' progress and weaknesses by providing feedback related to how to generate concepts and ideas first, how to put them in a concept map from the specific to general ones, as well as how to link between one idea to another using verbs or conjunction. In the writing stage, the teacher-researcher guided the students to develop their ideas based on the concept map they had constructed. The teacher- researcher also provided themes that were close to the students' environment. It was one of the researcher' strategies to facilitate the students to describe something clearly and also to encourage the students' motivation in learning writing. Furthermore, the researcher also guided the students to describe something using vivid words using to be, has/have, and noun phrases in sentences and to divide the composition into two parts; *identification and description(s).*

In the first action stage, although the students still had some mistakes in writing including format, organization and grammar-sentence structure, they seemed to understand how to generate their concepts and ideas in a concept map during their pre-writing stage.

Moreover, the results of writing assessment at cycle 1 revealed that the students' mean score had an increase of 7.35 points or 11.27%. It improved from 65.22 in preliminary assessment to 72.57 at the end of cycle 1. This result was moderate, but unfortunately the criteria of success had not been achieved yet. There were only seventeen students who gained the score 75 and above whereas the other twenty students failed. Thus, the researchers and collaborators then decided to provide more practices to write English at school and continued to the next action research cycle.

In the second cycle action stage, the students had already mastered the basic of pre-writing stage through Concept Mapping Technique well. However, some

students still had difficulties in using appropriate linking words and they sometimes forgot to develop their concept map or to put one or more ideas in their writing. Here, the teacher-researcher helped remind the students to develop the ideas for their composition from the concept map they had already made. It was done so that their writing had a good organization and their intention was clear in order to be understood by the readers. In addition, the students could distinguish generic structures in descriptive writing but some of them could not put it in a good format yet. For instance, there was no title, no new line of each paragraph, and no margins on both sides. In fact, format was also important for the readers to attract their attention on people, places and objects being described. Fortunately, for the mechanics aspect almost all students utilized them well. Moreover, the content of writing was good enough. The students seemed to try hard to describe topics in details.

Eventually, by the end of the second cycle, the average score of the students reached above the criteria of 75; i.e. 80.27. There were 30 students (81.08%) who were successful to achieve the Minimum Criteria of Learning Outcome above 75. The following graph illustrates the improvement of the students' average scores on descriptive writing from preliminary study, cycle 1 to cycle 2.

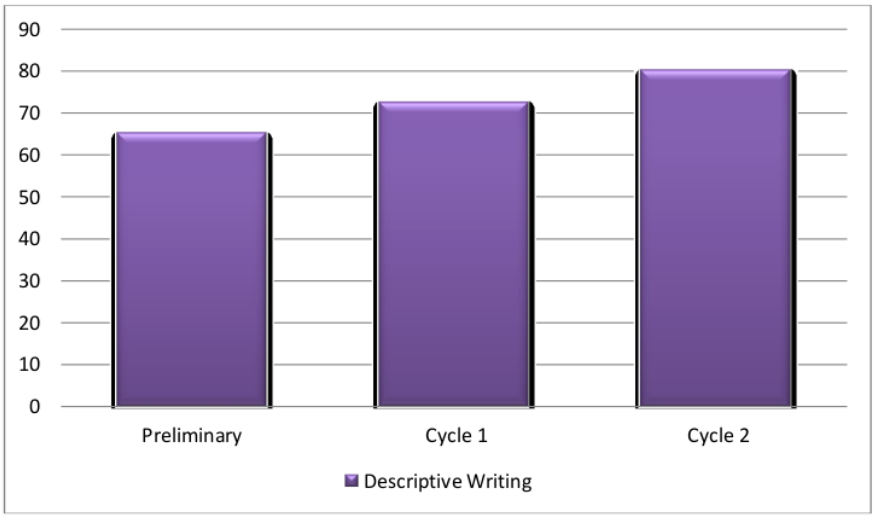

Figure 2. The Students' Descriptive Writing Average Scores

The findings of this study showed that the implementation of Concept Mapping Technique by the teacher- researcher could improve the students' writing ability in writing descriptive composition. The teaching aspects in each meeting of the two research cycles had been done well and as planned by the teacher-researcher.

The teacher firstly presented the materials about descriptive composition and Concept Mapping Technique in each meeting. It was conducted so the students had enough understanding of the writing aspects. The teacher's

performance in teaching learning activity was always evaluated by the collaborators. The teacher accepted the suggestions given and upgraded her performance in the next meeting. Some of the suggestions included the language of instructions in writing prompt and learning collaboratively. After getting the feedback, the teacher used simpler and clearer instructions as well as asked the students to participate actively in discussion, respect each other and do their task with a high sense of responsibility.

From the observations recording the students' behaviors during the study, it was revealed that the students were motivated to follow the lessons. It was supported by the interview results conducted with nine students selected from different ability levels. The students admitted they enjoyed the lessons using Concept Mapping technique and they preferred to work their task collaboratively.

Furthermore, they could share, help and discuss each other in generating ideas and develop them in descriptive composition using Concept Mapping Technique. Constructing concept mapping by incorporating to some extent cooperative learning activity could build interaction among the students, increase their participation in the teaching- learning process and encourage their motivation to learn writing better.

Conclusion

Based on the findings of this research, it could be concluded that the students' writing ability particularly in writing descriptive composition improved after the implementation of Concept Mapping Technique. This particular technique can be potential when implemented well to solve the students' main problem in generating concepts and ideas to write a composition as well as increase their participation in the class. Therefore, it is recommended that teachers try to make the best use of this technique to assist their students to write compositions, not only in descriptive genre but also in other text genres.

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