The Power of Mind Mapping to Produce Good Writing Product

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Abstract

The objective of this study was to find out the significant difference in writing achievement between the 11th grade students SMA Al-Amalul Khair Palembang who were taught by Mind Mapping technique and in that of those who were not. The second objective was to find out the improvement of the 11th grade students' writing score at SMA Al-Amalul Khair Palembang after they were taught using Mind Mapping technique. The Quasi-experimental method through pretest-posttest non-equivalent control group design was used in this study. The population was all of 11th grade natural science students at SMA Al-Amalul Khair Palembang in academic year 2018/2019. The total number of the population was 52 students in which they were divided into two classes as class 11.1 and 11.2. The sample was taken non-randomly. Class 11.1 was chosen as the experimental group and class 11.2 was chosen as the control group. The total number of the sample in the experimental group was 22 students. The test was administered twice as pretest and posttest. The results of the tests were analyzed by using paired sample t-test and independent sample t-test through SPSS (Statistical Package for Social Sciences) program.

Keywords: writing, mind mapping technique

Introduction

The complex process of writing sometimes create bored situation in doing it. The students need to pass that process to produce a good paragraph. The process of the writing consists of some stages. Those stages should be passed

in order to get good paragraph. Some students experience difficulties in every stage in writing. The stages in writing are generating ideas, focusing, structuring, drafting, evaluating, and reviewing (White and Arndt (1991). Those stages are connected each other. Additionally, Hedge (2000) states some activities in writing such as: setting goals, generating ideas, organizing information, selecting appropriate language, making a draft, reading and reviewing it, then revising and editing.

Writing is a very complex process. The writer has to be well prepared before starting to write. Every stage has its own difficulties and also needs preparation. The fact that the students got some difficulties in passing those stages is the reason for the teacher to offer some strategies or techniques in teaching writing. The students will always be trapped in their "confuse world" when they write if they do not use a strategy or technique in doing it. Even to generate ideas is a very hard thing to do for many students in writing class if they are asked to do it without any strategy or technique.

The standard competence for first year students in writing is being able to write meaningful short and simple functional texts in narrative, descriptive and news item format to interact with people in their surroundings (Depdiknas, 2006). Based on this standard competence, the students need to be able to write those types of writing. The reason that the students have some difficulties in writing class is also the reason for the teachers to vary the strategies or techniques in teaching writing.

Yan (2005, 19) states that English as a foreign language (EFL) teachers and students face certain problems in teaching and learning writing. There were some problems that always appear when the students are involved in writing class. Lack of vocabulary, no idea to be written, afraid of mistaken, or grammatical problems are the example of the problem faced by the students in the writing class. Different students will have different problem. The teacher should know what problem faced by the students in the writing class. The appropriate strategy or technique should be chosen to help the students to write in the writing class.

Generally, senior high school students have a problem in writing class. The 11th grade students in SMA Al-Amalul Khair Palembang also have a problem in writing. The data that is taken from the school shows that the score is still under average. The 11th grade students' criteria of mastery learning of English in SMA Al-Amalul Khair is 7.0 which is correlated to minimum criteria of mastery learning of English from Palembang Educational , youth, and Sport Office (Kementrian Pendidikan, Pemuda, dan Olahraga Kota Palembang). Since the minimum criteria of mastery learning of English is 7.0 and writing is one of the skills taught in English subject, the students have to pass that score. Unfortunately, the 11th grade students' score in English especially in writing skill

is under minimum criteria of mastery learning.

The teaching technique should be offered to upgrade the students' score in English especially in writing skill. The teacher of English must have many strategies and techniques to overcome this problem. One of those techniques is mind mapping strategy. A mind map is a diagram used to represent words, ideas, tasks, or other items linked to and arranged radially around a central keyword or idea (Suyanto, 2015). This technique controls the writer to write the paragraph based on the idea prepared on the map. The map also helps the writer generate the new ideas appears in the process of doing writing.

Not only helps the students, this technique also helps the teacher in the process of teaching and learning in the classroom. Cahyono (2012) states that mind mapping can build and concentrate the vocabulary and grammar of students. The teacher can easily control the students in the writing process. Mind mapping is a guide for the students to write and a helper for the teacher to minimize guiding the students in writing process. The problems that the students have a little vocabulary, no idea to be written, and so on gradually could be minimized through this strategy.

There were two related studies that have been conducted related to the Mind Mapping technique. The first study was done by Fitria (2016). The aim of this study were to find out whether there would be any significant improvement in the ability of students taught to write in English using the Mind Mapping Technique (MMT) by comparison with students taught using another technique. The study was an experimental study. The result of the study showed that the students who were taught using the MMT performed better at writing tasks than those who were taught by another technique.

The second study was done by Suyanto (2015). The research aims to know whether the mind-mapping technique is more effective than the modeling technique in teaching writing, whether the writing skill of the students having high Intelligence Quotient (IQ) is better than that of those having low IQ in learning English, and whether there is an interaction between teaching techniques and students IQ in teaching writing. The research was an experimental. The findings revealed that: (1) the mind-mapping technique was effective in improving students' writing skill (2) the writing skill of the students having high IQ is better than that of those having low IQ; and (3) there is an interaction between teaching techniques and students' IQ. Therefore mind-mapping technique is an effective technique to improve the students' writing skill.

Based on the description above, the objective of the study was to find out whether or not there was a significant difference in writing achievement between the 11th grade students at SMA Al-Amalul Khair Palembang who were taught using Mind Mapping technique and that of those who were not. The

second objective is to find out whether or not there was an improvement of the 11th grade students at SMA Al-Amalul Khair Palembang after they were taught using Mind Mapping technique.

Writing

Leo (2007:1) states that writing as a process of expressing ideas or thoughts in words should be done at our leisure. To begin writing is not as simple as other activities in English. The writer, in this case the student, needs to prepare space time just for it. Writing needs hardly concentration to be done. Sharpless (1993) says the more we think about how we do it (writing), the more difficult it becomes. Writing is a serious activity that is easy and also difficult at the same time. However, as long as the appropriate technique is used, writing becomes a joyful activity.

Generally, writing is the process where every stage relates each other. The thoughts need to be relevant and cohesively allied (Bukhari, 2016). The processes such as prewriting should be connected to composing, the process of composing should be connected to revising, and the process of revising should be connected to editing. The following figure shows how the process continues:

prewriting ➡ composing ➡ revising ➡ editing

Moreover, Tompkins (1994) Writing has some stages to be passed in order to get good writing product. Those stages as bellow:

Stage 1: Prewriting

- Students choose a topic.
- Students gather and organize ideas.
- Students define a topic sentence.

Stage 2: Drafting

- Students write a rough draft.
- Students emphasize content rather than mechanics.

Stage 3: Revising

- Students share their writing with teacher or in writing groups.
- Students participate constructively in discussions about classmates writing.
- Students make changes in their writings to reflect the reactions and comments of both teacher and classmates. Between the first and

final drafts, students make substantive rather than only minor changes.

Stage 4: Editing

- Students proofread their own and or classmates writings.
- Students increasingly identify and correct their own mechanical errors.

Stage 5:

- Publishing Students publish their writing in appropriate form.
- Students share their finished writing with teacher.

From those stages, the first stage is considered the most time consumed. At this stage, the student needs to father information as many as possible before considering what should be written. According to Zainuddin (2004), during the pre-writing stage, the writer will get through the activities beginning from choosing a topic, meaning that he/she will have the idea in their mind about the material which will be written. Then, based on those purpose of the writing, the writer will have to consider in what form the writing will be and to whom their writing will presented to.

Mind Mapping Technique

Mind mapping is a suitable technique to improve reading comprehension and writing ability. It has been referred to by many names such as semantic mapping, webbing, clustering and brainstorming (Hyerle, 2008). Using this technique gives the students a chance to develop their idea. The chance to develop the idea then, could produce a good prewriting for the writer and (if possible) could give the chance for them to share their idea to their friends.

According to Buzan (2000), a mind map is a visual tool that can be used to generate ideas, take notes, organize thinking, and develop concepts. The students in fact always trapped on the prewriting stage. This first stage of writing really wastes the time. Unfortunately, most of the students do not realize that the time goes on. Using mind-mapping helps the students, at least, minimize time-consuming in the process of prewriting even though making it also spends a lot of time sometimes.

Buzan (2006) in his book explain how the Mind mapping be applied in the teaching of descriptive text. The steps are as follows:

1. The students write some keywords before starting to write.
2. The students then circle the words or phrases so that those words or phrases connect each other verbally and mentally.
3. The students write down the new words or phrases that come to mind, circle, and connect them each together.
4. The teacher needs to push the students to keep their hand moving all the

time.
5. The students write a draft without worrying to any mistake.

Those steps are the basic steps of applying the Mind mapping technique. Those steps could be improved conditionally depends on the situation in the classroom. For example, it is not a problem if the students write the words or phrases on the paper or at Microsoft words program. Another example, the time of applying this technique could be varied. The teacher might limit the time or offering the students to pass all the steps without any attention to the time.

There are some benefits of Mind mapping technique. Buzan (2006) describes that Mind mapping provides an opportunity for students to gain more knowledge and find many different kinds of errors in their writing such as misplaced of commas, misspelled of words, inconsistencies in ideas, and mistakes in tenses before these kinds of problems are seen by their teacher.

Hayes (1992) states that through mind mapping, the students turn random thoughts into patterns that can be written down and developed. By doing this, the students are able to explore their thought and ideas and then communicate them to their friends before starting to write the paragraph or the text. The effect of this activity is that the misspelling of words, misplacing of sentence, or disorganizing of ideas could be minimized.

Method

The quasi-experimental method was applied in this study. The writer used pretest-posttest non-equivalent control group design. Creswell (2010) describes this design as a popular approach to quasi-experiments, the experimental group A and the control group B were selected without random assignment. Both groups were given a pretest and posttest and only the experimental group received the treatment. In this case, the writer conducted the treatment to the experimental group only. The control group would not be given any treatment but it does not mean if the control group has no activity at all. This group independently joins the classroom activity based on regular schedule. However, both pretest and posttest will be conducted to both experimental and control groups.

Figure 2 describes the design of pretest-posttest non-equivalent control group design (Creswell, 2010);

| Group A | 01 | X | 02 |
| Group B | 01 | ---- | 02 |

Figure 2. The design of pretest-posttest non-equivalent control group design

Notes:

Group A   : Experimental Group

Group B   : Control Group

01   : pretest

02   : posttest

X   : treatment

---   : no treatment

This study was done at SMA Al-Amalul Khair Palembang. The 11th grade students were the population of this study. The total number of the population was 52 students in which they were divided into two classes as class 11. 1 and 11.2. The non-random sampling was used to choose the sample. The class 11. 1 was chosen as experimental group and class 11. 2 was chosen as a control group. The total number of the students in the experimental group was 22 students in which they were chosen as the sample in this study.

The writer used writing test to collect the data. It distributed twice as a pretest and posttest. The pretest was given to the sample students before treatment to both experimental group and control group. And the post-test was given after treatment to both experimental group and control in order to know how much Mind mapping technique increases students' writing achievement.

The first step of collecting the data that was done by the writer was by giving the first test as pretest to both experimental and control group. The writer then continued the next step by introducing the Mind mapping technique and applying this technique to the students in the experimental group as the treatment. The final step of collecting the data was by giving both experimental group and control group the posttest.

There were three stages in analyzing the collected data. They were scoring the tests, finding the means, and comparing the means. In scoring the students' test, the writer used the writing rubric. The students who got the scores from 21 to 25 were given excellent grade, and those who got the scores 16 to 20 were given very good grade. Moreover, for those who got the scores from 11 to 15, they were given good grade, and for those who got the scores from 6 to 10, they were given fair grade. Finally, the students who got the scores from 0 to 5 they were given poor grade. The following table is the interval and grade of the score:

Interval	grade
21-25	Excellent
16-20	Very good
11-15	Good
6-10	Fair
0-5	Poor

The writer analyzed those score (pretest score and posttest score) by using paired sample t-test and independent sample t-test through SPSS (Statistical Package for Social Sciences) program. The means of pretest score and posttest score was compared in order to find out the significant difference of 11th grade students at SMA Al-Amalul Khair Palembang and to find out whether Mind Mapping technique improve students' writing score.

Results

The pre-test and post-test were given to experimental group and control group. The pre-test was given before the writer conducted the treatment and the post-test was given after the writer conducted the treatment. The result of the test was presented in form of scores. The result of pre-test in the experimental group showed that the lowest score was 7 and the highest score was 11. The mean score was 9.05. The result of the posttest in the experimental group showed that the lowest score was 9 and the highest score was 16. The mean score was 11.77. The output showed that the mean difference between pre-test and post-test in the experimental group was 2.727 with standard deviation was 1.579 at the significant level was 0.00. Since 0.00 was lower than alpha value 0.05, it can be inferred that the Mind Mapping Technique taught in the experimental group was effective and there was a significant improvement before and after the treatment was given.

Student	Total score of pretest	Grade	Total score of posttest	Grade
1	9	Fair	13	Good
2	10	Fair	12	Good
3	7	Fair	9	Fair
4	8	Fair	9	Fair
5	9	Fair	12	Good
6	8	Fair	10	Fair
7	9	Fair	11	Good
8	10	Fair	13	Good
9	8	Fair	12	Good
10	10	Fair	15	Good
11	9	Fair	14	Good
12	10	Fair	12	Good

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13	8	Fair	9	Fair
14	10	Fair	14	Good
15	9	Fair	11	Good
16	10	Fair	10	Fair
17	8	Fair	12	Good
18	11	Good	12	Good
19	8	Fair	10	Fair
20	9	Fair	13	Good
21	9	Fair	10	Fair
22	10	Fair	16	Very good
Mean	9.05	-	11.77	-

The result of pre-test in the control group showed that the lowest score was 7 and the highest score was 11. The mean score was 9.14. The result of the posttest in the control group showed that the lowest score was 7 and the highest score was 11. The mean score was 9.64. The output showed that the mean difference between pre-test and post-test in the control group was 0.50 with standard deviation was 0.964 at the significant level was 0.024. Since 0.024 was lower than alpha value 0.05, it can be inferred that there was also an improvement of posttest score if compared to pretest score.

Student	Total score of pretest	Grade	Total score of posttest	Grade
1	10	Fair	11	Good
2	8	Fair	8	Fair
3	8	Fair	9	Fair
4	7	Fair	7	Fair
5	10	Fair	10	Fair
6	9	Fair	10	Fair
7	10	Fair	9	Fair
8	8	Fair	10	Fair
9	8	Fair	8	Fair
10	9	Fair	10	Fair
11	10	Fair	10	Fair
12	11	Good	10	Fair
13	9	Fair	11	Good
14	10	Fair	10	Fair
15	10	Fair	9	Fair
16	9	Fair	10	Fair

17	8	Fair	9	Fair
18	9	Fair	9	Fair
19	11	Good	11	Good
20	9	Fair	11	Good
21	10	Fair	10	Fair
22	8	Fair	10	Fair
Mean	9.14	-	9.64	-

From the table above, it can be seen if there was progress from the total scores of pre-test to post-test both in experimental and control group. The progress can be seen from the mean score of both groups after pre-test and post-test. The result in the posttest was higher than the result in the pretest of both groups. The students got a better writing achievement in posttest than in the pretest. The diagram bellow describes the result in the pretest and posttest of both groups.

Students pretest and posttest score of experimental group
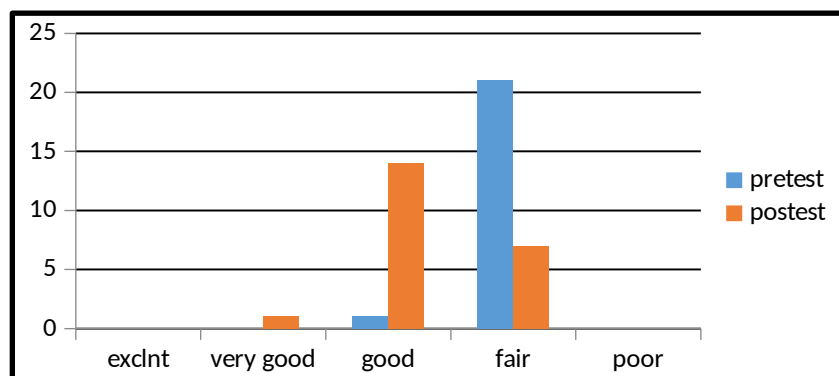
Students pretest and posttest score of control group
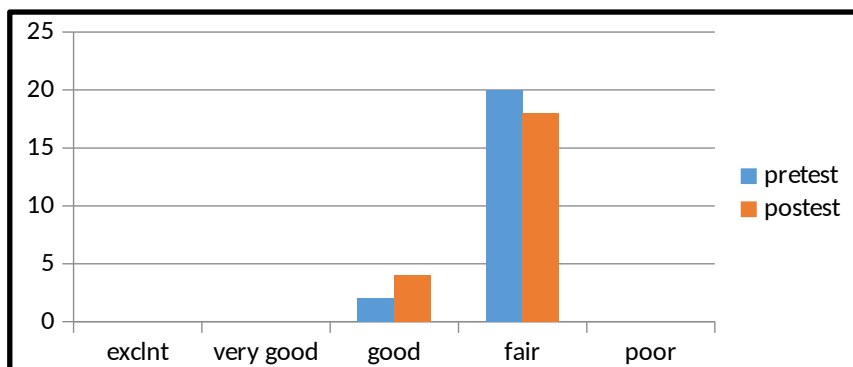
There were some factors that possibly cause this improvement to both experimental and control groups. For example, most of the students at SMA Al-Amalul Khair comes from different villages and stay in the dormitory at SMA Al-Amalul Khair Palembang. Since they stay at the dormitory, they have to stay 24 hours there. This condition indirectly affects the students to study at the same time and the same place out of school hours. Moreover, the students in control group might be not appropriate to the technique used by the teacher. In contrary, Mind Mapping technique could be appropriate for the experimental group.

Conclusion

The writer presents some conclusions based on the findings. First, there was a significant difference in writing achievement of the students both who were taught using mind mapping technique in experimental group and who were not taught using mind mapping technique in control group at SMA Al-Amalul Khair Palembang. It can be seen from the students' posttest score of both groups.

Second, there were an improvement before and after the treatment given to both experimental and control groups. However, the students in experimental group got a better achievement than the students in control group. It can be seen from the students' post-test progress in compared to pre-test. There were some factors that possibly cause that improvement. Those factors could be internal or external factors.

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