Essay Writing Through Quantum Learning With Mind Mapping Strategy

Ni Wayan Arini[1], Ni Ketut Desia Tristiantari[2]

[1, 2]Jurusan Pendidikan Guru Sekolah Dasar, Universitas Pendidikan Ganesha, Indonesia
e-mail: wayanarini@yahoo.co.id,desiatristiantari@gmail.com

Abstract

This research was aimed atfinding out the improvement in essay writing skill in Scientific Writing course among the students of Elementary School Teacher Department of class G in semester VI in the academic year 2015/2016 after implementing Qauntum Learning with Mind Mapping Strategy. This study used classroom action research design that was done gradually in multicyles. Each cycle consisted of planning, action, observation/evaluation and reflection. This study was done at Jurusan PGSD,FIP (Elementary School Teacher Department, Faculty of Education), Undiksha in the odd semester in the acacemic year 2015/2016 from April to November. The subjects were the students of class G in semester VI at Elementary School Teacher Department, Faculty of Education with the total number of 43 students. The data on the students' essay writing skill were obtained by using essay writing skill test. The result showed that (1) the mean score of the students' essay writing skill in cycle I was 73.4, in cycle II it reached 81.5, (2) the number of students who belonged to "good" and "very good" categories in cycle I was only 58.5, in cycle II it reached 88.4%, and (3) based on the computationi of gain score it was found that the improvement in the students' writing skill was 0.333, falling into "average" category. It can be concluded that the implementation of Quantum Learning with Mind Mapping Strategy could improve essay writing skill of the sudents in class G in semester VI in Elementary School Teacher Education Undiksha in the academic year 2015/2016.

Keywords: *Quantum Teaching, mind mapping, essay writing skill*

1. Introduction

Learning is a process of behavior change or individual potential change as the result of individual experience and change.According constructivist learning theory, in learning students have to find by themselves and transform complex information, cheking new information, using old rules and revise them when the rules are no longer applicable (Slavin in Trianto, 2009: 28). Basically, this constructivist theory stresses the importance of the principle that a teacher does not only give knowledge to the students, but the students have to be able to develop knowledge in their mindsby themselves.

One of the courses in Jurusan PGSD (Elementary School TeacherEducation) curriculum Undiksha is scientific writing. This course, especially, provides information and practices for the students to complete a final project. Scientific writing course stresses on two important points, i.e., the nature of writing and the nature scientific work. Hence, the students will have the skill in scientific writing which meets the requirements.

Writing skill is a productive and expresive language skill used for direct communication (Tarigan, 2008). Nurgiyantoro (Nurgiyantoro, 2001). states that writing is an activity to express ideas by means of language, so that a writer has to be able to have the ability in using vocabulary, writing system, and language structure. There are a lot of benefits that can be gained if someone is good at writing. Through writing, a person can express his or her ideas and feelings in written language (Semi, 2007). Based on some views above, it can be concluded that writing is a productiive and expresive language skill that is used to express ideas and feelings indirectly by means of language.

Scientificwriting is written work that presents ideas, descriptions or problem solving systematically, which is presented objectively and honestly, by using standard language (Dalman, 2012). Gunadarma (in Arini, 2015: 3) states that scientific writing is a written report

and publication that presents a result of research or a study that has been done by someone by following the rules and ethics of science.(Dalman, 2012) differentiates writing according to the weight of its content, i.e.,(1) scientific writing, (2)nonscientific writing, and (3) quasi-scientific or popular writing.

One of the types of popular scientific writing is essay. Arini (Arini, 2006) states that an essay is a prose that discusses a problem superficially from the writer's personal perspective.Soemanto in Wiedarti (Djuharie, 2001).states that an essay is a prosaic writing, explaining something (a phenomenon) by focusing on a problem as far as the writer is interested in it. An Essay is a writer's evaluation or perspective of a fact that occurred about which a conclusion will be made.The style of language that is used in an essay can be casual, the important thing is the essay is interesting, fresh and convincing.

Based on the researcher's experience in teaching at class G in semester VI in academic year 2015/2016, still many students have difficulty in writing an essay.In addition, the students lack self-confidence so that they hasitate in expressing ideas. Based on the researcher's brief interview with some students on Thuesday 12th April, 2016 still many students had writing skill which fell into "average" category. Based on the preliminary data through a pre-test in essay writing, only a few students had writing effectiveness of good category, i.e., in the range of score of 70-85. This was caused by the students' difficulty in writing an essay. The students were confused to start writing.In addition, some students had not been able to develop their ideas, so that the writing of the essay became less structured.

Based on the finding, the lecturer plays an important role in solving the students' problems in essay writing. One of the things that can be done to improve the students' writing skill is by improving the teaching. So far the teaching of writing proceeded conventionally. The students only listen to the lecturer's explanation on how to write a good essay. Then, the students are asked to write an essay according to the topic provided. The students' works were corrected by the lecturer and were given feedback. Through such teaching the students become less active. They only work according to the lecturer's instruction without any effort to do other activities. The essay writing cource proceeded in a less free and less casual learning environment, so that it caused the teaching to be boring. The students' creative ideas could not be channelled. This had an impact on the weak writing skill of the students.

Quantum Learningis one of the teaching alternative that is regarded relevant to improve the students' writing skill. Quantum means an interaction that changes energy into light, thus Quantum learning is a change in various interaction that happens in and arround the learning moment (DePorter, Reardon, & Singer-Nourie, 2014). The interactions cover elements to learn effectively which affect the students' success. Through the interaction the students' ability and natural apptitude can be changed into a light which is useful for themselves and other people. Quantum Learning is one of learning models that needs a free, casual, fascinating, pleasant, and stimulating condition. The characteristic of Quantum Learning is the management of a learning environment which is pleasant and comfortable by using music such as pop,*dangdut*. jazz and other genres of music (Suryani, 2013).

The framework of Quantum Learning design in which there are 6 stages or phases, i.e., Grow, Experience, Name, Demonstrite, Repeat, and Celebrate (DePorter et al., 2014).The steps in implementing Quantum Learning are (1) Giving the strenght to motivate the students and giving an explanation about the uses of the lesson for the students after the learn it; (2) Managing the learning environment to make the students have fun in learning, with an appropriate setting in the learning environment which prevents boredom.; (3) Creating the feeling of pride by praising the students who are able to answer questions; (4) Giving freedom in learning, by not limiting it into one learning pattern; (5) Making them develop the habit of taking a note ;(6) Making them develop the habit of reading.In addition to listening to the lecturer's explanation, they can also learn through reading to improve their memory power ; (7) Asking the students to be more creative. Creative students are the students who always want to know more, fond of doing an experiment, and playing; and (8) Giving practices to train the students' memories (Rachmawati, 2012).

The implementation of Quantum Learning is integrated with Mind Mapping. Mind Mapping has been arround since the middle of 1970's, which was developed by Tony Buzan.

Mind Mapping works by taking information from some sources and presenting it as a keyword in bright and colourful presentation (Edwards & Cooper, 2010). Mind Mappingapplies knowledge about brain and thinking process in various fields in life. By applying Mind Mapping strategy both brain hemispheres are involved, since pictures, colors, imaginations (right hemisphere) are used together with words, figures and logic (left hemisphere) . Old ideas in Mind Mapping are connected, helping the brain to make a great jump in concepts and imagination through association. Mind Mapping will help students learn, order, store as much information as possible, grouping it naturally, giving an easy and direct access. Mind Mapping describes an occurate relation between a central theme and main and minor concepts, and using colours to represent concepts is the major aspect that differentiates Mind Mapping built by the students who have achieved a higher level of conceptual understanding (Abi-El-Mona, 2008).

By applying Quantum Learning through Mind Mapping strategy, the lecturer will be able to motivate the students in writing activities since this teaching will make less confidence students become more motivated in learning.Also the students who regard scienctific writing course boring will be more relaxed and the teaching will not become monotonous. Thus, the students become more open in expressing ideas.

This study was aimed at improving essay writing skill in scientific writing course for class G students in semester VI in the academic year 2015/2016 after the implementation of Quantum Learning with Mind Mapping strategy.

2. Methods

This research used classroom action research that is i.e., a close investigation of learning activities in the form of action which is conciously made to occur and occur in a class (Arikunto, 2009: 3). Classroom action research is aimed at developing the lecturer's competence in solving teaching problem, so that it can improve the process and the students' learning achievment.

According to its characteristics, classroom action research is done gradually in multicycles to obtain the best result and valid data. Every cycle consists of planning, action, observation/evaluation, and reflection.

This research was conducted at Jurusan PGSD FIP (Elementary School Teaaher Education Department, Faculty of Education Science) Universitas Pendidikan Ganesha in the odd smester in the academic year 2015/2016 for approximately 8 mounths from April to October.The subjects were the students of class G in smester VI PGSD, FIP with the total number of 43 students. The selection of the subjects was in accordance with the lecturer's task as the lecturer of scientificwriting course in this class. The object of this study was the improvement in writing skill in essay writing among the students of class G in smester VI in the academic year 2015/2016.

The data about essay writing skill were obtained by an using essay writing skill test through an instrument written based on the grand theory of language skills. The data were analyzed by using descriptive quantitative analysis and the decision making was made based on the five scale conversion guide as follows in Table 1.

Table 1 The Five Scale Conversion Guide for Writing Skill

Criteria	Category
$85 \leq \overline{X} < 100$	Very Good
$70 \leq \overline{X} < 85$	Good
$55 \leq \overline{X} < 70$	Average
$40 \leq \overline{X} < 55$	Below Average
$\overline{X} < 40$	Poor

(Agung, 2010: 10)

3. Results and Discussion

Results

This classroom action research lasted in 2 cycles from 21th April 2016 to 26th May 2016. The data that had been collected were then analyzed based on the criteria that had been set up before.Every cycle consisted of thee meetings, in which two meetings were used for action and one for evaluation.The distribution of the students' writing skill scores in cycle 1 is presented in the Table 2.

Table 2. The Distribution of the Students' Writing Skill Scores in Cycle 1

Criteria			Number of students	%	Remark
85	≤	$\overline{X}$ < 100	1	2.3	Very good
70	≤	$\overline{X}$ < 85	24	55.8	Good
55	≤	$\overline{X}$ < 70	16	37.2	Average
40	≤	$\overline{X}$ < 55	2	4.7	Below Average
		$\overline{X}$ < 40	0	0.0	Poor

Table 02 shows that in cycle 1 the was one student or 2.3% of the students had a "very good" essay writing skill score, 24 students or 55.8% of the students got "good" essay writing skill score, while 16 students or 37.2% got "average" score, and 2 students or 4.7% got "below average" score.

Based on the result of observation, the implementation of Quantum Learning and Mind Mapping strategy in cycle 1 had not increased the students' essay writing skill. This is seen in the percentage of the students with "good" and "very good" scores, which was only 58.1%. Thus, this study had not yet achieved the success indicators that had been determined. This shows that the study had to be continued to the next cycle.

The less than optimum level in the students writing skill in cycle 1 was caused by the teaching process which had some constraints, i.e., (1) less motivation to effectively push the students to write, so that they only wrote without maximazing the result, (2) the students had difficulties to start writing and to express ideas in words and organizing them into sentences to form a pharagraph, (3) the students didnt know the topic of the essays that they were writing, so that many of the students' essays were superficial, (4) the students did not have self confidence because they were afraid that the lecturer criticizedtheir bad essays so that their works were less than maximal, and (5) the students did not know writing technique, which included ImprovedSpelling System, especially mechanics and the writing of capital letter, beside the use of standard and non standard words .

Based on the result from observation/evaluation activities which were implemented in cycle 1 then an effort was made to improve the implementation of the next action in cycle II.

The implementation of actionin cycle II was modified according to the result of reflection of teaching in cycle 1. The distribution of the students' writing skill scores is presented in the Table 3.

Table 3.The Distribution of Writing Skill Scores for Cycle II

Criteria			Number of students	%	Remark
85	≤	$\overline{X}$ < 100	22	51.16	Very good
70	≤	$\overline{X}$ < 85	16	37.21	Good
55	≤	$\overline{X}$ < 70	4	9.30	Average
40	≤	$\overline{X}$ < 55	1	2.33	Below Average
	$\overline{X}$ < 40		0	0.0	Poor

Table 3 shows that in cycle II 22 students or 51.16% of the students had "very good" essay writing skill, 16 students or 37.21% had " good" writing skill, 4 students or 9.30% had

"average" writing skill and 1 student or 2.33% had " below average" writing skill. Based on the observation in cycle II, the implmentation of Quantum Learning and Mind Mapping strategy in cycle II had been able to improve thestudents' essay writing skill. This is seen from the attainment of the students writing skill with "good" category and "very good" category, which had reached 88.37%, so that it can be said that this research was successful and did not need to be continued to the next cycle.

Discussion

Based on data analysis in cycle 1, only 25 students got essay writing skill in "good" and "very good" categories. Based on the researcher's observation, this was caused by some factors, i.e., (1) a low motivation. Motivation is an efficient instrument to push the students to write, It seemed that the students wrote just for the sake of writing without maximazing their results, (2) the students had difficulty to start and to express their ideas in words and organizing them in sentences to form a pharagraph, (3) the students did not know the topic of their essays very well so that most of the writing was still superficial, (4) the students felt less confident with their work because they were afraid to be critisized by the lecturer so that the students' works became less than maximal, and (5) The lack of students' understanding of the writing technique, which covered Improved Spelling System, especially the use of mechanics and the writing of capital letter, beside the use of standard and nonstandard words.

After an improvement was made in cycle II, the students' essay writing skill scores increased. The number of students whose writing skill was in "good" and "very good" categories improved up to 88.37% or 38 of 43 students.This is a very significant improvement from the previous cycle. By implementing Quantum Learning with, the constrain faced in the previous cycle problem could be overcome. Learning became student's centered. The students did not need to fix their attention to the lecturer' intructions. The lecturer was only a facilitator in learning activity. The students were free to be creative in expressing ideas. This was in line with Rati (Rati, 2013) who states that Quantum Learning is student centered. This is more constructivism in nature, i.e., the students have had prior knowledge from daily experience and previous educational level. The lecturer could bridge the students previous knowledge to the scientific knowledge that will be taught.

Quantum Learning is implemented in a free, fascinating, pleasant, and stimulating condition.This has a posistive impact on the students' motivation. The students' writing motivation can be developed, so that there is no laziness in writing anymore. This is consistant with the finding of Darkasyi (Darkasyi, Johar, & Ahmad, 2014) who states that by Quantum Learning, the motivation to learn in an individual, both conciously and nonconciously to do something with a particular goal can be improved. In thi case, the students need to be given a treatment to develop learning motivation, i.e., by creating a certain condition so that the students are motivated to learn.

By implementing Quantum Learning, the learning condition becomes more relaxed. With a relaxed learning condition, the students can optimally channel their potential. This is comfirmed by Suryani's finding (Suryani, 2013) that states that learning with Quantum Learning becomes more pleasant. This procedure provides a teaching style that enpowers the students to achieve a higher achievement than what is regarded possible. This also helps teachers to improve the students' skill and motivation, so that the teachers will get more satisfaction from their performance.

The constraint faced by the students in developing ideas can be overcome by Mind Mapping. Before writing an essay the students have been able to write an essay outline. Essay outline is made by Mind Mapping strategy which can help students to learn, organize, store as much information as possible and group the information naturally. This is in line with the result of the research done by Zampetakis (Zampetakis et.al, 2007) that states that the use of Mind Mapping can produce a good performance. The implementation of Mind Mapping can also improve creativity so that this strategy is a good solution to be implemented in teaching.

By asking students to repeat the lesson that they have learned, this will help them to

be skillful writers.Naturally, writing skill can be acquired by students through continous practice and celebration of their success in writing. This is very helpful in developing the students' self confidence, so that they do not need to be afraid of and bored with writing activity. This is similar to the result of Saptanti Rahayu's work in2008 en- titled "The use of Quantum Learning method to improve the students geography learning achievement viewed from students' intelligence'. The result of her study shows that the application of Quantum Learning method can improve students' learning achievement viewed from their intelligence level and the use of Quantum Learning method can improve students' activity in learning.

The finding is also confirmed by the research done by Andrew W Dawis in his study entitled "The Effect of Quantum Learning on Standardized Test Scores versus schools that do not use Quantum Learning". The result shows that teachers who used Quantum Learning werea more likely to have succesful students than those who did not use Quantum Learning.

In addition, the use of Mind Mapping helps the students very much in writing an essay outline that leads the writing process toward neater and more directed one. Based on the data analysis in cycle II, it can be concluded that the implementation of Quantum Learning with Mind Mapping strategy could improve the essay writing skill of the students in class G in semester VI, Jurusan PGSD (Elementary School Teacher Education department), Undiksha in the academic year 2015/2016, so that this classroom action research can be said to be successful.

4. Conclusion

There are some findings of this study, i.e., (1) the mean score of the students' essay writing skill in cycle 1 was 73.4, in cycle II there was an improvement so that the mean score reached 81.5 , (2) the number of students in " good" and "very good" categories in cycle 1 was only 58.1%, in cycle II it reached 88.4% , and (3) based on the compution of gain scores, it was found that the improvement in the students' writing skill was 0.303, in "average" qualification. Based on the findings explained in the previous section, it can be concluded that the implementation of Quantum Learning with Mind Mapping strategy could improve the students' essay writing skill in class G in semester VI, *Jurusan PGSD* (Elementary School Teacher Education Department), Undiksha in the academic year 2015/2016.

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