

USING COMBINATION BETWEEN *PROJECT-BASED-LEARNING* AND *MIND MAPPING* TO IMPROVE STUDENTS' WRITING SKILL

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Abstract

The purpose of the study is to find out: (1) whether and to what extent the combination between project-based learning (proj. BL) and mind mapping can improve students' writing skill on report texts; and (2) how the class condition is along with the improvement of their writing skill. The research was conducted at class XI IPA-2 of SMA Negeri 9 Purworejo in the academic year of 2017/2018. The research method was classroom action research with two cycle actions consisting of four steps for each: (1) planning, (2) acting, (3) observing, and (4) reflecting. The number of the participants is 24 consisting of 7 boys and 17 girls. The data in this study was taken from writing test, observation on the class condition, and the participants and collaborator interview. All of them were conducted three times: (1) at pre-cycle action, (2) at cycle-1, and (3) at cycle-2. Then, to know whether the data was valid or not, the triangulation technique was applied. It means that the data from the different instruments must be relevant. Then, the writer analyzed the data by using descriptive comparative technique. It means that the results of each cycle were compared to know whether the hypotheses were accepted and whether the result of the study met the indicators of research success. Based on the result of descriptive comparative analysis of the data, there are two main conclusions that can be drawn. The first, using the combination between project-based learning (proj. BL) and mind mapping can improve students' writing skill on report texts, dealing with their ability in: (1) stating the main ideas, (2) providing supporting details, (3) using appropriate words or phrases to express their ideas, (4) using English grammar to make well-formed sentences, (5) using appropriate devices to create well-organized texts, and (6) using appropriate writing mechanics to accomplish the purpose of the texts. It can be proved from the result of the writing test conducted, namely from 57.33 at the previous condition, 67.58 at the first cycle, and 69.67 at the second cycle. The second, there is an increasing on the class condition along with the improvement of their writing skill. Therefore, it is recommended that: (1) it is better for teachers to apply the combination between project-based learning (proj BL) and mind mapping in teaching writing for report texts; (2) students are suggested to practice and practice using this learning methods to improve their writing skill, and (3) future researchers can use the result of this study as the starting point of other similar research.

Keywords: *writing skill – report texts – project based learning – mind mapping*

INTRODUCTION

Among the four language skills, writing is regarded to be the most difficult one to learn, especially writing in a second language. Rifai (2012: 293) states that to be able to write, students will not only struggle to find ideas, but also need to work hard to find what words or phrases to use in each sentence. Students have double duties; providing ideas and putting their ideas in the form of understandable written text. It is not easy to do. It really needs continuous and serious learning and practice. On the other hand, writing ability is very important language skill to learn. Brown (1994: 324) states that across the age-levels from elementary school through university graduate courses, we write in order to succeed in mastering the subject matter. He also states that in school, writing is a way of life. Without having ability to write, it's impossible for them to pass the course. Considering the above condition, as English teachers, we must realize that we need to provide an appropriate teaching method for our students so that they are able to write.

Based on School-Based Curriculum (KTSP) 2006, where the ultimate goal of any subject are stated in the form of students' basic competences, especially in SMA Curriculum, writing appears in two different basic competences for each semester. The first is writing for short functional texts and the other is writing for genre-based texts. For the eleventh grade

students (the second semester), the functional texts are banner, poster, pamphlet, etc; whereas the genre-based texts are narrative, spoof, and hortatory exposition. In related to this, Baruah (in Ngadiso, 2012: 162), states that the main aim of developing the writing skill is to train students in expressing himself in good English. Therefore, teachers are suggested to lead students to be able to put their ideas into a good text so that others can understand the content of the text easily. It needs an appropriate method that can support the development of students' writing skill effectively. Finally, teacher must also prepare an appropriate assessment for students to know whether they have reached the goals or still need to learn more.

Ideally, students must be able to produce a good English text to express their ideas. A good text must be supported by good components of writing underlying the text. In this case, Harris (1969: 68) states that there are several components of writing: (1) content: the substance of the writing; the ideas expressed; (2) form: the organization of the content; (3) grammar: the employment of grammatical forms and syntactic patterns; style: the choice of the structures and lexical items to give a particular tone or flavor of writing; and (5) mechanics: the use of graphic conventions of the language. The all components then form the indicators of writing. In his scoring rubric of writing, Brown (2004: 244-245) proposes five components in writing assessment. They are: (1) organization, (2) logical development of ideas (content), (3) grammar, (4) punctuation, spelling, and mechanics, and (5) style and quality of expression (vocabulary). The higher the score of each component is, the better the text produced by the students.

In fact, based on the writing test and the observation conducted by the researcher's in pre-cycle action, it was found that their writing skill was low. Their average score was 57.33, under minimum standard criterion (63). There were just 7 of 24 students (29.17 %) could reach KKM, the other 69.83% were under KKM. From the view of writing process, it was found that 7 of 24 students (29,17%) needed very long time to get an idea, Then, 16 of 24 students (66,67%) found the difficulty in finding the facts about the thing they want to describe as well as to organize them. At the end, five of them produced very short texts. There are 12 of 24 students (50%) who wrote their texts in Bahasa Indonesia first. Not only that, 6 of 24 (25%) students were found cheating from the text written in internet. The result of the observation done by the researcher found that: 5 of 24 students (20.83%) were not ready to join the class, less attention to the lesson and often went out the class; 7 of them (29.17 %) tend to be lazy; 3 of them (18.2%) seem to be unhappy joining the lesson; 7 of them (29.17 %) tend to be busy with their own activity; and 7 students (29.17%) cheated to the text found in the internet. Then, from the interview conducted, it was found that 14 of 24 students (58,33%) were not interested in writing English text. They said it will be difficult to get the facts about the thing they want to describe as well as to arrange them into a good text. They also have serious problem dealing with vocabulary and grammar mastery. They also said that the teaching technique applied by the teacher in their class doesn't lead them to be able to write a text. They need a new attractive one.

To overcome the problem, the researcher offered a new teaching strategy, namely the combination of *project-based learning and mind mapping*. Project-based learning is an approach of teaching which "student-centered and driven by the need to create an end-product, that is actually an old teaching technique designed by David Snedden in mid-1800s and developed by William Heard Kilpatrick in the early 1900s to teach American students. It nowadays has been used again popularly in English language teaching since it is believed to be an effective method develop the 21st century skills for students, such as critical thinking, communicative skill, problem solving skill, innovative, and collaboration skill. On the other hand, *mind mapping*, which was introduced and popularized by Tony Buzan in 1970s, is a note-taking technique. It is the easiest way to develop information in a human mind and take information from out of brain. This technique helps students in preparing anything to write. It is a planning of writing. Through mind mapping, students will get the complete idea to write. Therefore, it is hoped that by combining the two learning techniques above, students will get an ease in

producing a perfect report text, starting from getting and arranging ideas to produce real report texts.

LITERATURE REVIEW

The Nature of Writing Skill

Basically, writing is expressing thought or ideas through understandable graph symbols to share meaning. Along with speaking, it is a productive language skill. According to Byrne (1993: 10), writing is a form of graphic symbols consisting of letters which relate to the sound we produce when we speak. The symbols have to be arranged according to a certain convention to form words, and words to be arranged to form sentences. Nunan (2003: 88) defines writing as the process of thinking to invent ideas, thinking about how to express into a good writing, and arranging the ideas into statements and paragraph clearly. Another expert, Rivers (1981: 294), states that writing is conveying information or expression of original ideas in a consecutive way in the new language. In addition, Elbow, in Brown (2001: 336) says that writing is a two-step process. The first process is figuring out the meaning and the second process is putting the meaning into language. Thus, we can conclude that writing is a productive language skill consisting of generating and putting ideas in graphic symbols, as words or sentences, through a conventional language structure, so that it is understandable, to share the meaning to others.

The word “skill” itself refers to someone’s ability to do something. Based on *Encarta Electronic Dictionary*, the word skill has two meanings: (1) ability to do something well; (2) something requiring training to do well. According to *Cambridge Advanced Learning Dictionary*, skill is the ability to do an activity or job well, especially because we have practiced it. We can say that skill is the ability to do something well because of we have educated, trained, and practiced it.

Writing skill is very important in our life. The importance of writings spreads to many aspects of our life. As stated by Pillai (2000) “writing is very essential for many field such as; education, business, government, and scientific”. For example, in business world, writing is used to make an application letter, letter of offer and appointment, memos, and any kind of business forms. It is also used to make some public sign, labels, manual instructions, bill, menus, telephone directories, etc. In governmental field, writing is used to make any kind of announcement and instruction, any kind of letter, proposal and reports of any programs planned. In scientific field, writing is used to make research proposal and the report of it, and to make any kind of scientific books.

In education, writing English is one of four skills that have to be achieved by students at secondary, high schools, and universities. They write when they have to make a note of any lesson or lectures; when they make a summary of what they have read; when they have to finish their assignments; and when they have to answer the questions on their exams. Here, writing skill is very useful for students. Without having enough writing skill, they will often find difficulty on their studying.

There are two main types of writing. Harmer (2009: 112) proposes two main types of writing: writing-for-learning and writing-for-writing. In first view, writing is regarded to be the practice tool to help students practice and work with language they have been studying. In this case, writing must be preceded by pre-writing activities, such as drafting, revision, and editing. On the other hand, writing-for-writing, is directed as developing the students’ skill as writers. The main purpose of this type of writing is to prepare students to be better in writing any kind of writing

In order to be able to produce good written texts, there are some steps to do. The steps is called a writing process. Harmer (ibid: 113) states that the process of writing involves **planning** of what we are going to write, **drafting** it, **reviewing** and **editing** what we have written and then **producing** a final (and satisfactory) version. This process is not a linear process. Writers usually do it again and again and sometimes in chaotic order. Dealing with what the teachers must do in teaching writing, Joko Nurkamto (in Ngadiso, 2012: 167) suggests that students must have a

chance to experience, evaluate, and reflect the steps of writing by themselves from planning up to the end of producing a text. The steps are:

- 1). *Planning*. The teacher guides the students to choose and determine the topic, limit the topic, and the topic sentence or thesis.
- 2). *Outlining*. The teacher asks the students to brainstorm and write the points which can be used to develop the topic
- 3). *Drafting*. The teacher facilitates the students to develop each point into sentences or paragraphs
- 4). *Revising/ Editing*. The teacher asks the students to reread and evaluate the draft which they have made and revise or edit it to be better in terms of content, organization, grammar, vocabulary, and mechanics (spelling, capitalization, and punctuation)
- 5). *Rewriting*. The teacher asks the students to rewrite and revised the draft they have made.

To be able to go on, writing needs some factors involved. Haris (1969: 68) states that writing has several components such as: (1) content (the substance of writing; the ideas expressed), (2) form (the organization of the content), (3) grammar (the employment of grammatical forms and syntactic patterns), (4) style (the choice of the structures and lexical items to give a particular tone or flavor of writing), and (5) mechanism (the use of graphic convention of the language). All those components of writing work together to support the meaning of the writing text, so that what the writer wants to share about through the text can be easily understood by the readers.

According to Brown (2004: 221), there are some micro and macro skills for writing. The micro skills are: (1) Produce graphemes and orthographic patterns of English; (2) Produce writing at an efficient rate of speed to suit the purpose; (3) Produce an acceptable core of words and use appropriate word order patterns; (4) Use acceptable grammatical systems (e.g. tense, agreement, pluralization), patterns and rules; (5) Express a particular meaning in different grammatical forms; and (6) Use cohesive devices in written discourse. Then, the macro skills are: (1) Use the rhetorical forms and conventions of written discourse; (2) Appropriately accomplish the communicative functions of written texts according to form and purpose; (3) Convey links and connections between events, and communicate such relations as main idea, supporting idea, new information, given information, generalization, and exemplification; (4) Distinguish between literal and implied meanings when writing; (5) Correctly convey culturally specific references in the context of the written text; and (6) Develop and use a battery of writing strategies, such as accurately assessing the audience's interpretation, using pre-writing devices, writing with fluency in the first draft, using paraphrases and synonyms, soliciting peer and instructor feedback, and using feedback for revising and editing.

Combining some theories of writing, Ngadiso (2012: 163) states that to be able to produce a good written text, students must be able to: (1) state the main idea of the text; (2) provide supporting details of the topic/ idea; (3) use appropriate words or phrases to express the idea; (4) use certain language system (grammar) to make well-formed sentences; (5) make use of appropriate cohesive devices to create a well-organized text; and (6) use appropriate mechanics to accomplish the purpose of the text.

Considering the elements of writing and skills needed, there are some indicators to be developed in writing report text. They are:

- (1) stating the main idea of the text;
- (2) providing supporting details of the topic/ idea;
- (3) using appropriate words or phrases to express the idea (vocabulary);
- (4) using certain language system (grammar) to make well-formed sentences;
- (5) using appropriate cohesive devices to create a well-organized text; and
- (6) using appropriate mechanics to accomplish the purpose of the text.

In this research, all indicators above will be measured through writing test. Then, the result is scored using a scoring rubric which is taken from the scoring rubrics of writing proposed by Brown (2004: 244-245). There are five writing elements scored in their writing. They are: organization, logical development of ideas (content), punctuation, spelling, and mechanics, and style and quality of expression (vocabulary). Each of them is leveled from 1 for the lowest proficiency up to 5 for the highest one.

Report Texts

A report text is a text describing the way things are, with reference to a range of natural, man-made, and social phenomenon in our environment. The subjects are about the phenomena of the world whether living things (such as animals, plants, and flowers) or non-living things (such as phones, cars, volcanoes, and oceans).

There are two main parts of report texts. The first one is general classification. It is an opening statement introducing the subject of the report and it can include a short description and definition. The second one is description consisting of a series of paragraph to describes the subject. Each new paragraph describes one feature of the subject and begins with a topic sentence, followed by detail sentences.

Then, the language features of this type of text are: (1) using timeless present tense, (2) using action verbs (climb, eat, and erupt) linking verbs (is, has, belongs to), (3) using language of defining (are called) classifying (belongs to), comparing and contrasting (are similar to, are stronger than, like), and (4) using descriptive language (color, shape, size, function, habit, behavior)

Project-Based Learning (Proj. BL)

Project-based learning (Proj. BL) is one of the teaching methods suggested in scientific approach implemented in 2013 curriculum. Basically, It is a kind of learning method leading students to come to an end-product through series of learning steps in a certain periods of time. The products can be in form of presentation, exhibition, publication, etc. Actually, this kind of learning method is not a new method in education since it was designed and used firstly by David Snedden in mid-1800s to teach science in American Agricultural classes (Beckett, in Fauziati, 2014) and then developed by William Heard Kilpatrick (John Dewey's student) in early 1900s to cater the need for a purposeful activity of the learners, that is, to construct knowledge by generating their projects based on their interest and individual differences.

Nowadays, project-based learning (Proj.BL) has been promoted within English language-teaching since it is widely known as an effective method to meet the need of the 21st century challenges in education (Fauziati, *ibid*). As we know, in this century, we need some important skills, such as critical thinking, communication skill, collaboration, problem solving skill, etc. Ribe and Vidal (1993, in Fauziati, 2014: 166) states that project-based learning (proj. BL) is a systematic instructions method that develops students' language skills, cognitive domains, and personality skills through valuable projects. It means that this teaching method develops the three domains of education simultaneously. It develops cognitive, psychomotor, and affective aspects at once. So far, Simpson (2011) identify some variety of skills which can be developed through project-based learning, namely: enhancing academic achievement and content knowledge relevant to the course, increasing autonomous learning, gaining important life skills, and developing high-order thinking skills, and increasing motivation. All of them are really needed in facing our life in the 21st century.

There are some characteristics of project-based learning, so that it is believed to be able to lead students having 21st century skills. Stoller (1997) mentions some characteristics in project-based learning:

- Project work focuses on content learning rather than on specific language targets. Real world subject matter and topics of interest to students can become central to projects

- Project work is student centered, though the teacher plays a major in offering support and guidance throughout the process.
- Project work is cooperative rather than competitive. Students can work on their own, in small groups, or as a class to complete a project, sharing resources, ideas, and expertise along the way.
- Project work leads to authentic integration of skills and processing of information from varied resources, mirroring real-life tasks.
- Project work culminates in an end product that can be shared with others, giving the project a real purpose.
- It is potentially motivating, stimulating, empowering, and challenging. It usually results in building student confidence, self-esteem, and autonomy as well as improving students' language skills, content learning, and cognitive abilities.

Other expert, Debra Howe (www.edutopia.org/project-based-learning), proposes some essential elements of this learning method, such as: (1) significant content, (2) 21st century competencies, (3) in-depth enquiry, (4) Driving question, (5) need to know, (6) voice and choice, (7) critique and revision, and (8) public audience.

Then about the teaching steps, there are a few different ways in applying the project-based learning (proj. BL) as proposed some different experts. According Wrightly (1998, in Fauziati 2015: 168), the basic procedures of project-based learning includes: selecting a topic, making plans, researching, developing products, and sharing result with others. Another experts, Stanley (2000) and Markham, et al. (2011) in Fauziati (ibid), propose some stages on developing project. They are: (1) starting the project, (2) developing the project, (3) reporting the project to the class, and (4) assessing the project.

Then, in related to teaching writing, there are some steps that must be done by English teacher when using this teaching method. They are (1) get an idea, (2) design the project, (3) tune the project, (4) do the project, (4) exhibit the project, (5) how is the result (<http://www.innovationunit.org>). The teaching steps applied in this research are: (1) selecting a topic, (2) making a plan, (3) doing research, (4) developing the project, and (5) share the result to others.

As one of teaching methods suggested in scientific approach, project-based learning (proj. BL) has many advantages for students. This method is very beneficial for students in gaining some skills needed in facing 21st century challenges. It develops students cognitive, skills, and affective simultaneously. According to Simpson (2011, in Dewi, 2015: 25), the use of Proj. BL in the language classroom helps students in: (1) gaining language proficiency, self-efficacy and self-esteem, (2) using real-life language and experiencing language in meaningful life situations, and (3) in developing motivation, self-confidence and the cognitive domain in second/foreign language learning. Another benefit is to the development of problem-solving and higher order critical thinking skills (Allen, 2004). These skills are very important for students to face their future life. These skills belong to 21st century skills.

Then, according to Kementerian Pendidikan dan Kebudayaan Republik Indonesia, there are some advantages of using project-based learning, as below:

- It improve students' motivation, encourages students to perform essential job and encourages their self-esteem;
- It increases problem solving skill;
- It creates active learning class;
- It fosters collaborative learning;
- It stimulates students to learn, to develop and to practice communication skill;
- It gives students team management experiences;
- It drives students in learning authenticity;
- It makes fun learning.

Besides some advantages, the use of *project-based learning* also has some disadvantages. Krajcik et al. (1998) and Marx et al. (1997) in Kodriyah (2015: 337) describe the difficulties encountered by teachers as follow:

1. Time: Project-based learning (Proj. BL) investigates project as such require more planning time and classroom time than typical lessons on both long term and daily bases.
2. Classroom management: Teachers must balance student autonomy with order.
3. Subject depth: Teachers need to focus on a driving question and link concepts and diverse activities, helping the students to construct their own knowledge rather than didactically teach single subjects.
4. Assessment; Project-based learning requires alternative forms of evaluating students' knowledge.

Mind Mapping

Mind mapping is a technique developed by Tony Buzan in 1970 as a technique used for ordering and structuring our thinking. According to Buzan (2005: 6), a mind map is a powerful graphic technique which provides a universal key to unlock the potential of the brain. It harnesses the full range of cortical skills word, image, number, logic, rhythm, color and spatial awareness– in asingle, uniquely powerful manner. It is a kind of visual tool that is regarded to be effective to generate ideas, take notes, organize thinking, and develop concepts. Another expert, Hedge (1998: 95) states that mind mapping is a strategy for note-making before writing. In other words, it is scribbling down ideas about the topic and developing those ideas as the mind makes association.

Mind mapping technique can be used effectively to explore almost any topic in writing and also used in every kind of texts, such as: narrative, descriptive, recount, report, exposition, etc. It is usually done in. pre-writing activity or in the planning stage of writing. It will help students in generating and organizing their ideas before coming to real writing.

According to Handoko,2017 (http://igrometro.co.id/the-concept_-of-mind-mapping-technique.html), there are some characteristics of mind mapping, such as:

1. Always use a central image
2. Use variations of printing, line and image
3. Use organized spacing
4. Use colors, color is one of the most powerful tools for enhancing memory and creativity.
5. Use only one key word per line
6. Each key word has branches.

Then, how to do with mind mapping? According to Buzan (2005: 15), there are 7 steps to make mind mapping. They are :

1. Take a blank paper and start to draw from the center of the paper. Draw from the center of the paper will give the brain freedom to express and explore anything naturally.
2. Use a picture or photograph as the central idea. A picture or photograph can help to improve the imagination and keep focus on the main topic.
3. Use colors. For brain, colors are interesting. Coloring pencil will make Mind Mapping more alive and bring new energy and creativity.
4. Connect the main picture to some branch details. Brain can connect three or four points in one time, and it is easier to be remembered and understood.
5. Connect the branches with bowline, not straight because straight line will bore the brain.
6. Use one keyword in every branch. Every single word will encourage the brain to develop it to be a new thought.
7. Use picture in branch as much as possible because each picture means a thousand words.

There are some advantages of using mind map in learning. According to Situmorang (2013, in Pratama, 2015:) said that Mind Mapping has some advantages: seeing the whole picture easily, helping the brain: regulate, remember, compare, and connect, facilitating the

addition of new information, reviewing quickly, every map is unique. Then, according to Buzan (2007, in Purnomo, 2014: 18-19), mind mapping helps the students in terms of: (1) planning, (2) communicate, (3) become more creative, (4) save time, (4) solving the problem, (5) focus on learning, (6) develop and clarify thoughts, (7) remember be better, and (8) learn more quickly and efficiently.

Teaching Writing Through Combination Between Project-Based Learning (Proj. BL) And Mind Mapping

In combining project-based learning (proj. BL) and mind mapping to teach writing, especially report texts, there are some steps we must They are:

1. Selecting a topic

In this steps, students (in a group) choose a topic that will be developed in a report text. They are suggested to choose one of animals, fish, plants, flowers, or things that they like best. It is suggested to choose the strange one, so that it will be interesting for others after it being shared or publicated.

2. Making a plan

In making a plan, students must provide as many as essential questions related to the topic they have chosen. Their questions must cover any aspect of the topic they choose. The role of teacher in this step is to control whether the questions asked are adequate enough. If not, the duty of the teacher to lead them completing their questions.

3. Doing research

Based on the number of essential questions provided, then, students must doing the research. In their research, they have to look for the answers of all the questions through some book sources, encyclopedias, or Internet browsing. In a format provided, they write down the answers including the sources where they get the information)

4. Developing project

Having answered all the questions, means that students have got the facts to write about the topic they choose. There are two main duties in this steps. The first is making a mind map of all the facts about the animal/ fish. Plant/ flowers/ things they have chosen. This will help students to prepare their writing, especially in organizing the writing material. The mind map is colorful that it will be interesting. The second step is writing a report text based on the mind map they have made. In this case, students will start from making a draft, revising, editing, and making a final text.

5. Sharing the result with others

The last step of this teaching method is haring the result with others. Here, each group will present their text to other in front of the class or publish their texts through school wall magazines.

METHODS

Research Design

The design used in this study was action research. Mill (in Creswell (2008: 597) stated that action research designs are systematic procedures done by teachers (or other individual in educational settings) to gather information about, and subsequently improve, the ways their particulars educational setting operates, their teaching, and their students learning. Since this research was conducted in classroom activity, so this research is called Classroom Action Research (CAR).Arikunto (2010: 128) said that this type of research is used because of the researchers aware that they are not satisfied with their work. Then, they try to improve their work by applying a new way again and again to get a better result. There are two cylces of action in this research with four steps in each. This is in line with the model developed by Stephen Kemmis (in Brien, 1998: 4). Each cycle has four steps: planning, acting, observing, and reflecting.

In this study, the independent variable was the teaching technique used by the researcher, namely the combination between *project-based learning (proj. BL)* and *mind mapping*; whereas the dependent one was students' writing skill on report texts. Then, the difference between the first and the second cycle in this research was that in the first cycle students did their activity in group of four and the result was published through school-board magazine; whereas in the second cycle they did their activity in pair and the result was published by internet.

Setting and Subjects of the Research

The research was conducted at class XI IPA-2 SMA Negeri 9 Purworejo in the academic year of 2017/ 2018. It started in September 2017 and ended in November 2017. The number of participants is 24 students, consisting of 7 boys and 17 girls. The researcher chose this class based on the fact that in average the members of the class have low writing skill, as known from the result of the writing test conducted in pre-cycle action. Actually the class is a good class with diligent students, but their motivation to study English was low

Technique of Data Collecting

There were some techniques of data collecting applied in this research. The first was writing test. This test was used to measure students' achievement dealing with the writing indicators. This test was conducted three times, namely at the pre-cycle action, at the end of cycle-1, and at the end of cycle 2. Students' works were scored using scoring rubrics. The two other techniques were observation and interview. Observation was done to know whether there was a positive changing in the class condition along with the improvement of their writing skill. There are 5 aspects of students' condition to be observed reflecting the indicators of motivation. They were: (1) attitude, (2) happiness, (3) cooperative, (4) working hardness, and (5) creativity. Then, interview was done between researcher-participants and researcher-collaborator. This was done to invite their suggestions toward the implementation of the teaching method applied.

Technique of Data Analysis

To analyze the data, descriptive comparative was applied. It means that to know whether the combination between *project-based learning (proj.BL)* and *mind mapping* can really improve students' writing skill or not is by comparing the result of the previous condition, the result of cycle 1, and cycle 2. This technique was also used to know about the increase of the class condition along with the improvement of their writing skill.

Before analyzing the data, the validity of the data itself was examined by using triangulation system. It means that the data is valid when they are resulted consistently from some different techniques of data collecting.

Indicators for Research Success

The research is regarded successful when the result met the two main indicators: (1) At least 85% of students can reach the *KKM* (namely 63) after joining the two cycles of teaching-learning activity using the combination between *project-based learning* and *mind mapping*; (2) there is an increasing of the class condition along with the increasing of students' writing skill.

RESULT AND DISCUSSION

The result of this research can be seen in the following table. It can be seen from the two main aspects, namely the result of their writing test and the result of the class observation.

Table 1. The Comparison between Before and after Research

Aspects	Previous Condition	Cycle 1	Cycle 2
The Improvement of Students' Writing Skill	1. Students writing skill was low in all indicators	1. Students' writing skill increased	1. Students' writing skill increased
	2. The average score was 57.33 (KKM: 63)	2. Their ability was still low in arranging the facts to provide supporting details and using	more in all indicators
	3. The highest score: 72		2. They still need to increase their grammar mastery
	4. The lowest: 40		
	5. The number of students reaching KKM: 7 of		

	24 students (29.17%)	appropriate grammar	3. The average
	6. The other 17 students (69.83%) were under KKM	3. The average score: 67.58	score: 69.67
	7. 16 students (66.67%) students found the difficulty in finding the facts and in organizing them	4. The highest: 80	4. The highest: 80
	8. 12 students (50%) wrote their text in Bahasa Indonesia first	5. The lowest : 50	5. The lowest: 52
	9. 6 students (25%) found cheating from the internet	6. Students' reaching KKM: 17 of 24 students (70.83%)	6. The number of students reaching KKM: 21 (87.50 %)
		7. The other 7 students (29.17%) were still under KKM	7. Only 3 of 24 students (12.50%) failed to reach KKM
		8. 8 students (33,33%) found difficulty in arranging the facts to provide supporting details.	8. No students having difficulty in arranging the facts to provide supporting details
		9. 3 students (12.50%) students wrote the text in Bahasa Indonesia first.	9. No students wrote the text in bahasa Indonesia first.
		10. 3 students (12.50%) cheating from the text they brought from home.	10. 2 students (8,33%) still cheated when writing their texts
The increasing of the class condition based on the result of observation	<ul style="list-style-type: none"> • 5 of 24 students (20.83%) were not ready to join the class, less attention, and often went of the class • 7 of 24 students (29.17%) were lazy • 3 of 24 students (18.20%) looked unhappy. • 7 of 24 students (29.17%) were busy with their own activity 	<ul style="list-style-type: none"> • 3 of 24 students (12.50%) were still in less attention to the lesson. • 6 students (25 %) tend to be a bit lazy; • 2 students (8.33%) seem to be unhappy joining the lesson; • 6 students (25%) were still busy with their own activity 	<ul style="list-style-type: none"> • 3 of 24 students (12.50%) were still in less attention to the lesson. • 1 student (4.17 %) tend to be a bit lazy; • 6 students (25 %) looked a little bit unhappy doing their activity (they were bored) • 5 students (20.83%) seem to be not very serious

From the table above, we can say that there is a significant improvement of students' writing skill from time to time. The average score increased significantly from 57.33 at pre-cycle action to 67.58 at cycle 1 and finally to 69.67. This is quite far above the KKM (63). The number of students reaching KKM after two cycle activities is 21 from 24 (87,50%). The improvement is related with their ability in stating main ideas, providing supporting details, using appropriate vocabularies, English grammar and writing mechanism. It means that the first indicator for the research success has been fulfilled. From the observation done by the researcher and the collaborator, it was found that there is an increasing of the class condition along with the improvement of their writing skill. It has met the second indicator for the research success. It means that the use combination between *project-based learning (proj.BL)* and *mind mapping*

really brings the positive impact for students' writing skill as well as on the class condition. Then, the individual improvement of students' writing skill can be seen in the following figure.

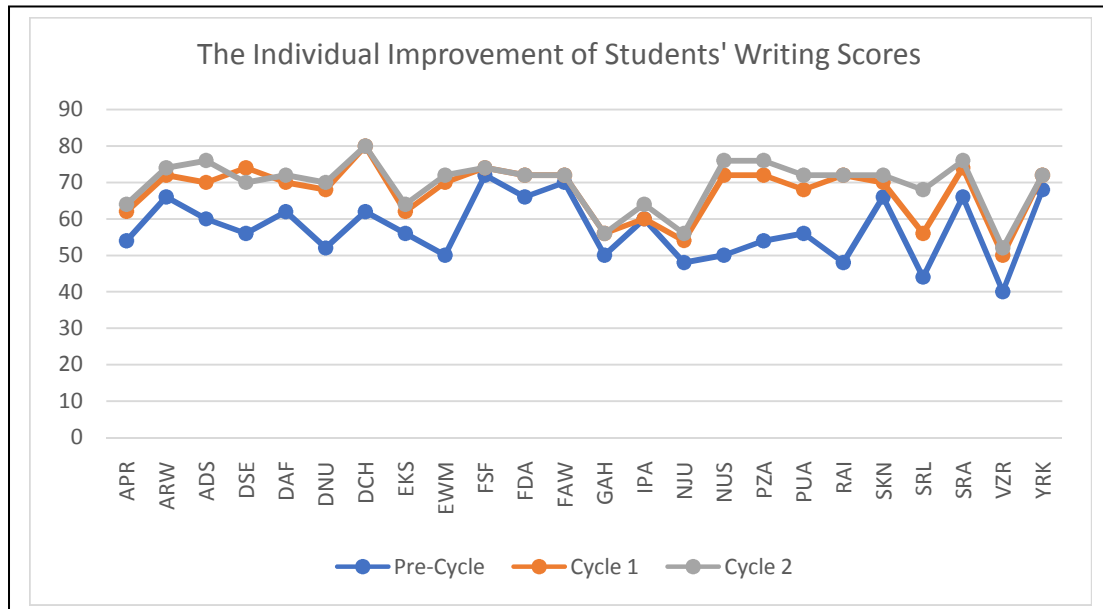


Figure 2 The Individual Improvement of Students' Writing Skill during the Research

CONCLUSIONS AND SUGGESTIONS

From the previous description and explanation, it can be concluded that the use combination *between project-based learning (proj.BL)* and *mind mapping* can really improve students' writing skill on report text as well as their class condition. The fact said that from the two cycles action conducted during the research, there are 87.50% students reaching KKM. It meets the first indicator for the research success. The improvement was in all writing indicators, namely: (1) stating main ideas, (2) providing supporting details, (3) using appropriate vocabularies, (4) using appropriate English grammar, and (5) using appropriate writing mechanism. The implementation of this teaching method also increase the class condition. The fact said that the class after research was better compared with the previous one. It means that the second indicator for the research success has been reached.

Therefore, teachers are suggested to apply combination between *project-based learning (proj.BL)* and *mind mapping* in the classroom since this teaching method is an effective way to improve students' writing skill on report text. Students are also hoped to use this technique to always practice and practice writing through this way so that their writing skill will increase day by day. For other researchers, the result of this study can be used as the starting point to have the same research with different research subject. They can also develop some other researches on improving students' writing skill, especially on report texts.

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