THE INFLUENCE OF PROBLEM BASED LEARNING TOWARDS STUDENTS ANALYTICAL EXPOSITION TEXT WRITING ACHIEVEMENT IN SENIOR HIGH SCHOOL OF 14 BANDAR LAMPUNG

(Undergraduate Thesis)

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FACULTY OF TEACHER TRAINING AND EDUCATION LAMPUNG UNIVERSITY BANDAR LAMPUNG 2022

ABSTRACT

THE INFLUENCE OF PROBLEM BASED LEARNING TOWARDS STUDENTS ANALYTICAL EXPOSITION TEXT WRITING ACHIEVEMENT IN SENIOR HIGH SCHOOL OF 14 BANDAR LAMPUNG

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Writing has been one of the four skills in language learning that is very important to master. Analytical exposition text is one of the texts that should be mastered by the senior high school students. This research aims to find out whether there is a significant difference in students' writing achievement before and after being taught with problem based learning and to investigate which aspect improves the most after the students being taught with PBL. Adapting a quantitative approach, this research was conducted through one group pretest and post-test design. The subjects of the research were thirty six students at Senior High School of 14 Bandar Lampung. The data were elicited through pretest and post-test in the form of analytical exposition text. The mean of both tests were analyzed using Paired Sample T-test with the significant level of 0.05. The result showed that there was a significant difference in students' writing performance after they were taught with problem based learning concerning the gain of their score from the first to the second test. It could be seen from the computation that the significant values of the test were lower than alpha (0.00<0.05) while the t-value (7.595) was higher than t-table (2.0301). It was also revealed that organization was the most improved aspect among the others by having the gain of 0.375. Finally, it can be said that the problem based learning method can have a positive effect on the students' analytical exposition text writing achievement.

Keywords: Problem Based Learning, arguments, students' writing achievement.

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By

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Students Analytical Exposition Text Writing Achievement

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Menyatakan bahwa skripsi ini adalah karya saya sendiri. Sepanjang pengetahuan saya, karya ini tidak berisi materi yang ditulis orang lain, kecuali bagian-bagian tertentu yang saya ambil sebagai acuan. Apabila ternyata terbukti bahwa pernyataan ini tidak benar, sepenuhnya menjadi tanggung jawab saya

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CURRICULUM VITAE

The writer's name is Kurnia Utami. She was born on April 11st 2000 in Bandarlampung. She is the only biological child of Muchlis and Yanti Aprilia(alm). She has been raised by her grandmother since her mother passed away in 2003.

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DEDICATION

By the name of Allah Subhanahu Wa Ta'Ala who always bless my life and give me strength, this script is devoted to all inspiring teachers who instilled in me the pleasure of teaching and learning, my dearest family who provides endless support, all of my beloved friends, and my alma mater, University of Lampung.

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"Allah does not burden a person with something more than he can bear"

(Surah Al-Baqarah 2:286)

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I. INTRODUCTION

In this chapter the researcher presents several main points to discuss the main ideas of the study. It consists of some points to provide prior information for the research. The researcher describes the background and the reason in selecting the topic. It is divided into several parts including background, research question, objective of the research, the uses of the research, the scope of the research, and definition of terms.

1.1 Background

Language has an important role in human life. We use language to communicate with each other. Communication is one of the life skills that must be acquired by humans as a social creature. Acquiring the English language as a global language is necessary nowadays. English is one of the foreign languages taught in Indonesia, among other foreign languages. English has been introduced to the students in Indonesia from elementary school until university level. Most high schools offer one to two classes a week every semester throughout the two levels of high schools, junior high school and senior high school which take three years for each. Even though they have been taught English for more than six years, students in Indonesia have not shown satisfactory results after graduation (Bahri Ys, Kirana, & Mustafa, 2017). As a language, students are expected to achieve four skills in English: listening, speaking, reading and writing.

High schoolers students are usually being instructed to do writing both in their learning process at school and real life situations outside the school. In the application of language, delivering ideas can be done orally by speaking and writtenly by text. When it comes to expressing the ideas through a text, the writing has to be factual and valid. It means that in the process of writing itself, a writer needs a preparation, prior knowledge or an accurate experience before conveying the ideas or information into the paper sheet. Writing is an important skill which is going to be very useful for people to communicate with others and also to express their feelings or ideas through a written form.

Writing is one of the language skills that is important for students to master, evenmore for the students in the middle school level. According to Ashraf et al. (2016) writing is one of productive English skills that should be masterly skilled by English as Foreign Language (EFL) students in Indonesia for written communication and academic writing purposes, such as; letters, essays, papers, articles, journals, project reports, theses, etc. It asserted that writing has a vital role in language production that is used for global mediation of knowledge. According to Lowenberg (2000) there are various types of writing in Indonesia that should be learnt by the students including expository, narrative, descriptive, recount and argumentative. The intermediate level students are expected to have already equipped at least to have basic level writing skills (Spratt et al., 2005). Thus, learning how to write in English well is very important for students.

As stated in Hairuddin (2018) regarding analytical exposition text writing, it has been found in early study that the students have not been aware of the patterns in writing that they have studied in the class. The discussion points which can be elaborated from main ideas are rarely delivered in their writing and there are some long explanations of the ideas which did not really succeed supporting the main ideas. Finally, students failed to conclude their writing concisely at the last paragraph. Moreover, they found it hard to replicate the content with the appropriate expressions. With that in mind, this type of text needed to be taught with a method that can provide stages for discovering. Beside that, critical thinking is the most important aspect in argumentative text and it also plays an important role in the PBL implementation. Fahim et al. (2014) reported in their study that critical thinking is regarded to be the most influential factor in argumentative writing and they also concluded that having critical thinking skill in higher education is crucial and plays a significant role in understanding the learning process. Moreover, according to Reves et al. (2008) critical thinking should enable students more than just to read the words in a textbook but also to read the world such as to closely examine the existing power structures and their roles within them. In addition Murtadho (2021) stated that to read the world, students should be familiar with the practice of critical thinking and share their thoughts to others through argumentative writing.

Without disregarding the three other skills, writing may always be the most difficult for EFL learners as stated by Fitriati et al. (2017). There have been many studies showing that writing is a difficult skill for English Foreign Language learners. Regarding to the difficulties, Suhartoyo et al., (2014) stated that writing is the most complicated skill because it requires much concentration, conscious efforts and practice in all its steps, i.e. composing, developing and finalizing.

However, writing skills has a very important role in human life (Arief, 2017). As reported by Putri (2018) the challenge in argumentative text students' writing process is caused by the untrained critical thinking skill. This is in line with Masduqi (2011) Indonesian students tend to be ineffective in sharing ideas in writing because of their limited use of critical thinking skills and meaningful activities. Toba et al. (2019) revealed on their research that the reasons students experience problems in writing are not only limited knowledge of writing aspects and comparison and contrast essay itself, but also they had own personal reasons; lack of writing practice, writing dislike, writing anxiety, negative writing perception, low writing motivation, insufficient time given in writing test, and also inadequate teaching writing process taught by their lecturers.

Referring to Ariyanti (2016) for many teachers in Indonesia, teaching writing skills has been considered as a challenging task because of the complexity of the writing process. Consequently, the teaching-learning writing activity in classroom must be systematic yet interesting for the students. Teacher needs to apply an appropriate teaching method so that students are able to achieve the objectivity in lesson plan. Moreover to make students being able to produce a good piece of writing. An interesting class leads to a high excitement of students which can keep their animo to keep active in the class learning activities. A systematic yet fun atmosphere in a typical classroom makes students learn in fun ways.

Regarding the learning method that could be implemented in EFL writing classes, there are some learning models which are joyful and attractive, one of them is Problem Based Learning (PBL). Compared to other traditional lecture based

learning, PBL provides real world problem solving stages which encourage and motivate how to learn and learn similar to the real world. There are some advantages we can get from using a method called PBL to make students interested in learning writing in a systematic way but still drilling their critical thinking skills. Problem-based learning provides a platform for authentic English as a second language instruction for the English language learners(ELLs), that as a result, can foster English language use while promoting skills such as critical thinking, interactive communication, and self-reflection also along with language arts skills such as reading, writing, listening, and speaking as cultural constructs (Hearn & Hopper, 2008). As stated by Ali (2019) PBL is both a teaching method and approach to the curriculum. It can develop critical thinking skills, problem solving abilities, communication skills and lifelong learning. The more curious students' get, the more motivated they are to be involved in the classroom activity which will lead them to get more experience in critical thinking drills. It means that the teacher must emphasize the uses of Problem Based Learning to keep students' interest for their writing productivity which might increase their writing skills in expressing their ideas significantly and life-longly in real life cases. By using this method, it is expected that the students are able to learn easier and for teachers it can be an alternative to monitor and observe the process of writing. Accordingly, teachers work hard to help students develop their writing abilities by implementing process and product approach within active and cooperative learning among which include the Task-Based Learning, Project-Based Learning, and Problem-Based Learning.

Problem based learning is well known as a student-centered educational method which aims to develop problem-solving skills through self-directed learning as a lifetime habit and teamwork skills. PBL not only focuses on problem solving but also is responsible for the development of other skills and attributes. PBL is defined by Hung (2013:31) as "an instructional method aimed at preparing students for real-world settings by requiring them to solve problems as the main format of instruction, practice higher order thinking skill, and self-direct as well as reflect on their own learning". There have been many previous researches about methods in teaching English as foreign language, but problem based learning still got very little recognition to be implemented as one of methods in teaching language. PBL had been implemented mostly in the science field rather than in language teaching. Also based on the basic stages of problem based learning is presentation, problem analysis, research, and reporting enable the maximum development of students' skills in problem solving (Hmelo-Silver, 2004). The teaching and learning approach which emphasizes the development of problem-solving skills through a student-centered, inquiry, and collaborative learning is needed (Jumariati & Sulistyo, 2017).

The researchers Ermawati & Ghufron (2018) revealed on their case study that the the strengths of PBL are: problem solving skills, self-directed learning skills, reducing students' nervousness, raising student' self-confidence and motivation, raising students' responsibility in learning, easily sharing and exchanging ideas among students, making the students more active in learning, making the students explore many learning sources to solve the problems, and making the students have positive attitude to learning. Theoretically PBL is based on the idea

of a small group collaborative learning with students being actively responsible for their own learning process and for the meaningful construction of knowledge by linking to existing knowledge (Maurer & Neuhold, 2012). Learning in such an environment increases motivation and the probability of learning by deep understanding in contrast to passive knowledge transfer. With that in mind, students in the classroom being implemented PBL method will work collaboratively with their peers to come to the construction of knowledge on the issue and problem-solving. PBL provides structured stages for discovery that will be helpful for students to internalize learning and lead into greater comprehension. Nisa et al. (2017) found in their research that PBL and writing process combination affected the students' writing achievement after getting treatment for four days. Besides, students' perception toward the implementation of Problem-Based Learning showed that more than 80% students agreed with the statement which described that PBL helped the students in generating their ideas to start their writing.

Finally, considering the features of PBL, the importance of developing the skills in argumentation, and students' difficulties in English writing learning on the other hand motivate the researcher to choose this method to teach writing and to find out the answers of the research questions about the improvement of students' writing skills and in which aspect would possibly be most affected.

1.2 Research Questions

Based on the background that has been discussed above, the researcher formulates the problems as follows:

- 1. Is there any significant improvement of students' analytical exposition text writing achievement after being taught with the PBL method?
- 2. Which aspect of writing improves the most after they are taught with the PBL method?

1.3 Objective of Research

- To find out whether there is any significant improvement of students' analytical exposition text writing achievement after being taught with the PBL method
- To find out which aspect of writing improves the most after they are taught with the PBL method

1.4 The Uses of the Research

- Theoretically, this study might give some contributions and support to the
 enlargement of theories about problem based learning implementation in
 the English language teaching field, especially for teaching writing. For
 researchers, the results can be a reference or comparison in the further
 study for the similar issues discussion.
- 2. Practically, the results of this study might be used as a consideration for English teachers to implement problem based learning in teaching writing in the context of English as foreign language. Besides that the researcher is expecting that the students are able to learn English easily and for teachers this method could be an alternative to monitor and observe the writing process of EFL students.

1.5 The Scope of the Research

The focus area on this study is investigating the students' writing productivity before and after learning English with a problem based learning method. Using a quantitative approach as the research methodology to examine the data, this research was implemented on the second graders of Senior High School of 14 Bandar Lampung. The research is focusing on two research objectives. The first is to know the impact of the PBL method on students' writing achievement which is related to the writing aspects such as content, organizations, vocabulary, language use, and mechanics. The second objective research is to find out which aspect would improve the most after the students follow the learning activities organized in the lesson plan. Argumentative text was chosen to unify the type of writing product the research participants would do. Argumentative text is the most suitable type of text to be juxtaposed with the PBL method because the students can get opportunities to express their opinions freely. Besides, students' critical thinking skills in giving responses to the cases given are able to be seen easily in this type of text. Precisely, analytical exposition as one of the families in argumentative text text would be the lesson material taught to the students as the treatment. It coordinates the school syllabus for the second grader students. Meanwhile the cases to be given in the treatment were picked from the frequently discussed issues around the students' environment recently. Lastly, the students' writing product was assessed with writing aspects thereafter.

1.6 Definition of Terms

The statements provided below are the keywords which are the important terms being mentioned in this research:

Writing

Writing is a whole brain activity to formulate and organize ideas with the right words to deliver and communicate the aims to the reader and present it on a piece of paper (Santoso, 2019).

Problem Based Learning

PBL is an instructional approach based on many constructivist learning principles and theories, which see students as active learners and build knowledge through interaction with the environment and social negotiations (Kharade & Peese, 2014)

Analytical Exposition Text

According to Sa'diah (2019) argumentative text is a text purposed to argue or discuss about particular topic or problem issues around which provided by some fact and data.

II. THEORETICAL FRAMEWORK

This chapter is provided with theories as the support for the research and concerning the definition framework of the research. They are previous study, writing, analytical exposition text, problem based learning, teaching writing with problem based writing, teaching writing with problem based learning, the advantages and disadvantages of teaching writing with problem based learning, theoretical assumption and hypotheses.

2.1 Previous Research Overview

There are several studies conducted by researchers related to the topic of this study. One of the researchers which has investigated the effect of problem based learning methods is Hairudin, N.H. (2018) with the title "The Use of Problem Based Learning (PBL) Method in Teaching English Writing". The study was attempted to discover whether the use of PBL method can enhance students' writing skill and their perception towards PBL method. From the pretest and post-test results it was confirmed that the implementation of PBL method contributed to the students' improvement of writing skills. The improvement was concerned with five components of writing. Meanwhile, analysis of perceptual questionnaires indicated that the experimental group had positive perception on the use of PBL method. This research took place at SMAN 5 Makassar, South-Sulawesi.

The other research conducted by Affandi & Sukyadi (2016) investigated the significant differences in students' writing achievement as taught by PjBL and

PBL titled "Project-Based Learning and Problem-Based Learning for EFL Students' Writing Achievement at the Tertiary Level". There were 78 participants as subjects assigned to two intact-groups, with 39 students each. Group 1 was taught with the use of PjBL and meanwhile Group 2 with PBL method. The results reported that (1) PjBL and PBL methods were able to improve the students' writing achievements; (2) students' writing achievements in both groups were not significantly different and (3) the students perceived both PjBL and PBL as interesting. They found the PjBL and PBL instruction offered a new mode in the teaching process. From the students' responses, PjBL enabled them to think contextually about given problems, work together in a group, develop their critical thinking, and encourage them to be more explorative. Similarly, PBL was perceived by the students as engaging them in the learning process and helping them to think more critically.

There was previous research which was aimed at evaluating the strengths and weaknesses of Cooperative Learning and PBL in EFL writing classes. The research was "The strengths and Weaknesses of Cooperative Learning and Problem Based Learning in EFL Writing Class Teachers and students perspective" by Ali Ghufron and Siti Ermawati (2018). According to the finds of their research, problem solving skills, self-directed learning skills, reducing students' nervousness, raising student' self-confidence and motivation, raising students' responsibility in learning, easily sharing and exchanging ideas among students, making the students more active in learning, making the students explore many learning sources to solve the problems, and making the students have positive attitude to learning were classified into the strengths of PBL.

Furthermore there was another research by Apriliadewi (2017) titled "An Analysis Of The Implementation Of Problem Based Learning In Learning English At The XI Grade Science Class Of S MA Negeri 1 Singaraja In The Academic Year 2015/2016". Using observation, interview, and questionnaire as research methods the researcher found out that English teachers find it difficult to manage the learning time, determine the problem which is related to students' characteristics, and cannot check all of the students' work because of the big number of the students'. The researcher also reported that the main problem faced by the students during the implementation of PBL was they cannot improve in collaborative learning in solving the problem. The teacher also did not give the suitable case for students that the students were unable to do their work appropriately. However the model could make the students interested and motivated during the lesson, enable students to explore their knowledge and emphasize students' ability in giving their opinion to solve the problem in front of the class.

2.2 Writing

Writing is one of the skills beside listening, reading and speaking in learning a language that must be mastered by the students in learning a language.

2.2.1 The Concept of Writing

According to Bull (2010) writing is making letters or numbers on a surface, especially using a pen or pencil. Writing is a productive skill where everyone is able to deliver and share the ideas into a form of written product. Then Sidauruk et al. (2020) stated that writing is a practice tool to help the students' practice and

work with language they have been studying. As stated by Byrne (1995) writing is transforming our thoughts to become language of written form.

Due to its complexity and high-conscious-language-knowledge-needed, writing can be used as the parameter of a results of students' linguistic knowledge longitudinal development Fitriati & Yonata (2017). Ordinarily in Indonesia there are various types of writing that should be learnt by the students including expository, narrative, descriptive, recount and argumentative. According to Coleman et al. (2016) the purposes of writing are to express feeling, entertaining, informing, and persuading readers. Indeed, the messages delivered in the text should be written clearly and comprehensively.

2.2.2 Aspects of Writing

There are aspects that can't be ignored by students in writing and must be considered in the stages to create a piece of good writing. Based on Jacobs (1981) there are 5 aspects of writing:

1. Content

The substance of writing, the experience of the main idea is identified by seeing the topic sentence. The topic sentence should express the main idea and reflect the entire paragraph of the text.

2. Organization

The logical organization of content must be coherent so that ideas run smoothly within paragraphs.

3. Grammar/Language use

It refers to the use of the correct grammatical forms and syntactical pattern.

Grammar and language use can be identified from the construction of wellformed sentences.

4. Vocabulary

The word selected by the writer must represent the most appropriate meaning so that the information or ideas can be delivered entirely. A good vocabulary use can be identified by seeing the words choice or diction in order to convey ideas to the reader.

5. Mechanics

It refers to the use of graphic conventions of the language. The usage of spelling, punctuation, and capitalization within the paragraph can be the points to consider in identifying good mechanics in writing.

2.2.3 Process of Writing

According to Sidauruk et al. (2020) writing involves a number of activities; setting goals, generating ideas, organizing information, selecting appropriate language, making a draft, reading and revising it, then revising and editing. In other words, it can be stated that writing is a whole brain activity to formulate and organize ideas in the right words to deliver and communicate the aims to the reader and present it on a piece of paper. Additionally, according to Hogue (1996) the students will become understand in writing process by always using these four

steps: (1) prewriting (getting ideas and organizing them), (2) writing the draft (3) editing the draft (checking and correcting it) and (4) writing the draft(final draft).

1) Prewriting

This is the step which the students have brain-warming for gathering the ideas they want to write. There are some techniques students can do to gather the ideas. The students can select a topic then write raw sentences without considering grammar, spelling, punctuation or sequences with freewriting technique. Quite different with free-writing, in clustering technique the student may use lines, boxes, arrows and circles to draw the relationship among the ideas and details that occur. After that students put minor ideas in the smaller boxes or circles, and use connecting lines to show the relations of each point. Another technique is having teachers to be more involved namely Brainstorming technique. This technique freely jotting down ideas about a topic, with the purpose is to generate lots of ideas so teachers have something to work with and select from. While students write everything that comes to themselves about a topic keyword and phrases, ideas, details, examples. After students have brainstormed, they must read over their list, underlining interesting or exciting ideas they might develop further (Fawcett, 2007: 9).

The last is questioning technique. This is the technique which the students generate who, why, when, what, where, and how questions about the topic before starting their writing. With those questions, students are able to elaborate and generate ideas by asking as many questions as the students can think about their topic.

2) Writing the Draft

Writing the draft (drafting) is the writing step after students generate their ideas. In this step the students start to convey the words they have in mind from the first line in the first paragraph based on what they have planned in the prewriting step. Grammar or spelling mistakes are trying to be reduced here but is not the main focus. Instead of focusing on the graphic aspects, ideas developing are being more focused in this step. The students are better at inputting more external conjunctions to enhance their ideas by linking to real world events. We still refer to this first version of a piece of writing as a draft. This first 'go' at a text is often done on the assumption that it would be amended later while as the writing process proceeds into editing, a number of drafts may be produced on the way to the final version (Harmer, 2004:5).

3) Editing (reflecting and revising)

In this step, the students are asked to be more focused on the word choosings, spelling, punctuation, and grammar mistakes instead of the content ideas. This step is basically focusing on editing and revising the writing mistakes. There are several steps in the editing process: First, students should check the meaning. Students should read their paragraphs silently. Is their writing able to communicate what they want it to deliver? Is the meaning of all the sentences clear? If not, the students should make the changes in their writing. Next, the students must check the mechanics. Students should read the paragraph silently again, this time look for mistakes in punctuation, grammar and spelling. If they find any mistakes, they should fix them. Third, if it is

needed the students can ask the other students to check the meaning. Finally, if possible students can ask their friends to check the mechanics of their writing. The peer checking steps are better done if the students have enough time.

4) Writing the final draft

The last step in the writing process is to write a clean revision of the paragraph with all the editing carried out. This draft is the one that the students will turn in, so they have to be sure to use a good writing format.

5) Revising and Editing

After finishing writing, students work in groups to observe the organizing idea and vocabulary of their writing result; it means that students can exchange their work with their friends and they give comments if it is necessary. Firstly, students must be focused on punctuation. Then, they have to pay more attention to the vocabulary including spelling and grammar. After that, students must read the content. The language used in the text must be checked for it has to be appropriate to their clustering.

2.2.4 Teaching Writing

Teaching writing in the context of English as a foreign language has been considered as a challenging skill for the language teachers in Indonesia due to the complexity of the writing process. Referring to Khunaifi (2015) writing is very difficult because in this skill the student writers need to verbalize their abstract ideas in their brain into a written form by paying attention to many things (idea,

concept, vocabulary, and grammar). Beside the complexity of the writing process itself, teaching the students to achieve the goals in writing production is also not easy. It is common that writing skills are positioned as the last skill to acquire by foreign language learners, including in the teaching and learning of English language. Similarly, Alwasilah (2005) claimed that skill of writing in Indonesia is the most ignored skill in language education. This is probably because of the complexity of the writing process (Fitriati & Yonata, 2017). Both writing teachers and writing learners probably suffer from the responsibility of handling writing instruction and producing good writing products (Febrianti & Sundari, 2021). Indeed, effective writing teachers have the ability to demonstrate an integrated knowledge base about writing and the teaching of writing Lee & Yuan (2020) and writing learners are expected to write writing products based on the prescribed writing syllabus.

In learning writing, the students are not only following the instruction from teachers but they also need to experience the discovery writing style on their own. This is in line with Sidauruk et al. (2020) learning to write is a process of discovering and organizing the ideas, putting them on the paper and reshaping and revising them. According to Harmer (2004) when helping students become better writers, teachers have a number of crucial tasks to perform during and after students' writing: demonstrating, motivating, supporting, responding and evaluating. Finally, in accompanying students' process while learning writing at various stages of draft, the teacher was not grading the work or judging it as a finished product. Teacher will, instead, be telling the student how well it was going so far. Meanwhile when evaluating the student's writing for a test purpose,

the teacher is highlighting the points where the students have written it well and where the mistakes are and also the teacher may be aware of the value. By way of contrast, the marking assessment is different from responding. Teachers can still use marking assessment, not just to rate students achievement, but also as a learning opportunity. Finally, the main focus in learning writing is that the quality of students' writing products are being improved in a particular period of time. When the students are able to improve the writing aspects in their writing products, it can be said that the students are learning writing successfully.

2.3 Analytical Exposition Text

In the context of teaching EFL, analytical exposition text is one of texts being taught to students in Indonesia. Analytical exposition text belongs to the type of argumentation text, where the text describes the author's detailed thoughts about an event or events around. Furthermore Zhu (2011) describes argumentative writing as the act of forming reasons, making inductions, drawing conclusions, and applying them to the case in discussion; the operation of inferring propositions, not known or admitted as true, from facts or principles known, admitted, or proved to be true. Meanwhile, according to Amilia et al. (2016) analytical exposition is defined as argumentative text because the writer providing readers or listeners with a point of view, ideas, or thoughts of topic or issue or problem needs to get attention or explanation with no apparent efforts to persuade readers. Different from argumentative text in general, analytical exposition text does not persuade the reader to adopt or consider a new perspective. The main purpose in analytical exposition text is to try to convince the readers that the topic

presented is an important topic to be discussed or gets attention by providing arguments or opinions that support the main idea or topic. Analytical exposition text does not only contain an argument, but can contain several argument series that have the same purpose. Analytical exposition texts are easily found in news editorials, advertisement texts, pamphlets, twitter threads, magazines, etc.

2.3.1 Language Features of Analytical Exposition Text

In writing a text of an English language must be followed by an appropriate generic structure and language features. Each type of text has particular language features which differ it from another. There are additional indicators for the generic structures of analytical exposition text that was published by the English Department of Weston High School, Weston Massachusetts, United States. The additional indicators are examples, audience, and purpose. According to Gerrot & Wignell (1994) the language features of analytical exposition text are:

- 1. Focus on Generic Human And Non-Human Participants,
- 2. Use Simple Present Tense,
- 3. Use Of Relational Processes,
- 4. Use Internal Conjunction,
- 5. Use Causal Conjunction, and
- 6. Nominalisation

2.3.2 Generic Structure of Analytical Exposition Text

There are three generic structures of analytical exposition as proposed by (Gerrot & Wignell, 1994) as follows:

1) Thesis

As with other types of text in general, a thesis contains the writer's view of a problem in a simple way. Thesis introduces the topic and the writer's position. This part also outlines the main idea that will be presented. Thesis is always written in the first paragraph of analytical exposition text.

2) Arguments

This part contains several further explanations of the simple description stated in the thesis part. The writer presents arguments or opinions to support ideas stated in the thesis. The number of argument paragraphs could be varied yet the argument should be supported by evidence and explanation. The more arguments that are presented, the more readers will believe that the topic discussed is an important topic. Preferably, in this section the opinions of experts are presented.

3) Reiteration

This is the closing section that is always located at the end of paragraph in analytical exposition text. The writer restates and concludes the point of view or main ideas contained in the first paragraph. The purpose of rewriting the main idea is to make the thesis statement stronger.

2.4 Problem Based Learning

Problem based learning is a method that engages students in "learning how to learn while they also learn language and content (Mathews-Aydinli, 2007).

2.4.1 The Concept of Problem Based Learning

Problem-based learning (PBL) is a family of constructivist educational approaches which is guided by teachers who act as cognitive coaches (Barrow, 1986). It was derived from the theory that learning is a process in which the learners actively constructed knowledge (Gijselaers, 1996). PBL was originally developed in medical education at McMaster University in the mid 1960s by Barrow and it has been used in a variety of settings from middle school to professional education recently. Although problem-based learning has successfully moved from the medical field into other fields of study, one final frontier for instruction is using problem based learning with English language learners (ELLs) Hopper & Hearn (2008). In the light of Maurer & Neuhold (2012) PBL is based on the idea of a small group collaborative learning with students being actively responsible for their own learning process and for the meaningful construction of knowledge by linking to existing knowledge. Learning in such an environment increases motivation and the probability of learning by deep understanding in contrast to passive knowledge transfer.

Problem-based learning enables students to embrace complexity, find relevance and joy in their learning, and enhance their capacity for creative and responsible real-world problem solving Aryanti & Artini (2017). PBL is rooted to the constructivist philosophy where the students' process of learning is considered like a building which must be constructed from the base to the tip.

Furthermore, constructivism holds that learning is spurred by 'the problematic' such as cognitive conflict Mishan (2011). PBL is an educational approach which

is naturally collaborative and built around solving a complex real-life problem or scenario that might come across in a professional setting. In a PBL class, the students are engaged in learning how to learn while they also learn the language and content. Principally PBL is a curriculum model that teaches students how to learn and emphasizes their ability in solving their own problems. With that in mind, the procedure or instruction used in the classroom must be taken from students' problem in acquiring the language, specifically how to pour the ideas in their mind in a written form in order for the readers to get the information the writer is trying to deliver. For example there is a teacher who stands in front of a group of students and gives a lecture. While students scramble to listen, understand and remember everything the teacher says. It can be hard to keep track of all that information let alone really absorb it. In contrast, PBL lets the students teach themselves. While becoming a problem master along the way. The classroom would look like this, a handful of students work in small groups exploring real life scenarios with the guidance of a tutor. Problem based learning is often used in a medical education based on real-life problems. The processes in solving a real life problem usually occur procedural in nature and often share a quality also represented in the learning process at school, the more related to the real life issue the more useful the knowledge students learnt at school conducted in real life events. The more the task reflects reality, the more the students feel motivated (Kolmos & Graaf, 2003).

2.4.2 The Characteristic of Problem Based Learning

A. Goals

Problem Based Learning aims at preparing the students to be able to solve the problems in their real-life. Barrows & Kelson (1995) stated PBL aims at:

- 1) Constructing an extensive and flexible knowledge base;
- 2) Developing effective problem-solving skills;
- 3) Developing self-directed, lifelong learning skills;
- 4) Becoming effective collaborators;
- 5) Becoming intrinsically motivated to learn.

B. Teacher's role

In PBL Teacher acts as a facilitator, the teacher is a facilitator who is an expert learner and presents good strategies for learning and thinking Adlipour et al. (2016). The facilitator has responsibility to guide the students in the stages of PBL while controlling the group process. During the process, the facilitator poses appropriate questions related to the cases that help the learners to enhance higher order thinking, encourage them to justify their thinking, and develop their self-reflection.

C. Cases

Cases used in problem-based learning are life-based and finding case solutions requires the student to employ processes which compel the use of all the language arts, especially speaking, thinking, reading, and writing (Hearn & Hopper, 2008)

2.4.3 The Procedure of Problem Based Learning

PBL method begins with the teacher presenting cases to the students. The cases are taken/chosen from the particular issue among students' environment as in line with Kolmos & Graaf (2003) PBL education is based on the students' background, expectations, and interests. According to Arends (2008) the procedure implementation of Problem Based Learning (PBL) is as follows:

1) Orient students to the problem

In the beginning of learning activities, students are being introduced to the learning objectives by the teacher. Furthermore, teachers are doing orientation issues until problems arise or are discovered by students. In order to provide support in the initial stages, facilitators of the process need to take several steps to build background (Hearn & Hopper, 2008). Based on the problems students are actively involved in solving, finding concepts and principles.

2) Organize students for study

Learning with PBL models requires skills development collaboration among students and helps them investigate the problem together. It helps to plan the investigation and reporting of their duties. Besides the need for study groups. There are a few things to note, that learning varies with the capability, race, ethnicity, and gender in accordance with the objectives to be achieved. If the difference in the group is required, then the teacher can create a group with students to deal with.

3) Assist Independent and group investigation

Investigations carried out independently, in groups or in a small group that is the core of the model PBL. Although each situation requires a slightly different problem investigation techniques, most include data gathering process and experimentation, hypotheses, explanations and settlement administration. At this stage the teacher encourages students to collect data and carry out the actual activities until they truly understand the dimension of the problem situation.

4) Develop and present artifacts and exhibits

Artifacts are more than written reports. They include such things as videotapes that show the problem situation and proposed solutions, models that comprise a physical representation of the problem situation or its solutions, and computer programs and multimedia presentations. Exhibits can be traditional science fairs, where each student displays his or her work for the observation and judgment of others, or verbal and visual presentations that exchange ideas and provide feedback.

5) Analyze and evaluate the results of the problem-solving process.

The final step of problem based learning involves activities aimed at helping students analyze and evaluate their own thinking process as well as the investigative and intellectual skills they used. During this step, teachers ask students to reconstruct their thinking and activity during the various steps of the lesson.

2.5 Teaching Writing with Problem Based Learning

Fundamentally, teaching writing is to teach students to share and express their ideas into a written form. It is very important for the teacher to provide the materials which are relevant to students' need and interest and also to the things that they have not known before. Brown (1980:7) states that teaching is showing or helping someone to learn how to do something, providing with knowledge, causing on helping someone to know or understand. This statement can be concluded that teaching writing can be guidance for the students to learn how to write easily. Reid (1993:27) has stated teaching writing is a unique way to reinforce learning. Teaching analytical exposition text as argumentative text would be easier with the method that has similarities in its procedures. While PBL provides structured discovery stages, analytical exposition text provides more with the content aspect, especially the language features; those similarities would support each other to achieve the lesson objective. According to Amir Taufik (2009) there are seven steps in PBL.

1) Clarifying and Agreeing on Terms and Concepts that are Unclear

The first step is to make sure all of the students understand the concept of the problem. Clarifying and agreeing on unclear terms and concepts is very important before going to the further steps. In this step teachers can play video or show picture series in order to make students understand about the concept of the problem. Teachers must consider the difficulty level when picking the topic or case. Teachers also can or distribute analytical exposition text samples to students.

2) Formulating the Problem

In this step the students determine the problem to solve. To decide the case, students can discuss with the groups divided by the teachers. And then the teacher can start a discussion of a general topic of cases commonly happening around the students environment. After introducing the general topic, the teacher gives the problem to students. The teacher can use brainstorming techniques to help students figure out the ideas or information they need.

3) Analyzing the Problem

It is a step where the students start to look at the problem critically. In this step, the students can use their knowledge to analyze or learn the problem specifically. The students should determine the basic problem. They work and discuss in groups to get clear about analyzing problems.

4) Formulating Hypotheses

It is a step in which the students formulate the same solutions based on their knowledge. Formulating hypotheses is important in Problem Based Learning. The ability that is expected in this step is to consider the causes and effects to solve the problem.

5) Collecting Data

To solve the problem, the students need to look for and draw information. In this step, the students have to collect and select the relevant date about the topic. Those processes are based on experience and not just imagination. The time data will support solving the problem. For example: the students have to find the date or information from other sources to get the clear concepts of their text. The sources are books, notes or teacher explanations. Then, the students should determine the general structure, tenses and types or text.

6) Evaluating the Hypothesis

It is the step which the students formulate a conclusion based on the sentences or the failure of the hypothesis. The students should evaluate the results or conclusion of their project correctly in order to get the best result.

7) Formulating the Recommendation of Problem Solving

Finally, the students draw the recommendation which can be done based on the formulation of the evaluation of the hypothesis result. For example: the students will apply the activities in the previous step. So, after they evaluate and get the new idea or recommendation, they would apply it to their project result.

The process of teaching writing to the students is systematic. The students were instructed to create a piece of writing on their own at the end of the learning activities with the procedure of Problem Based Learning. The teacher would give a case after explaining about the characteristics, types, tense and generic structure of analytical exposition text.

2.6 The Advantages and Disadvantages of Teaching Writing with Problem Based Learning

Advantages:

According to Liu (2016) the advantages of PBL as a base in learning are as follows. First, Increase student interest and motivation in learning. Second, students can understand learning well rather than using traditional learning. Third, it contributes to the cultivation of students' comprehensive skills such as cooperation, investigation, problem solving and critical thinking that are useful not only when learning, but also useful in the workplace. Fourth, help facilitate teacher role shifts and be conducive to classroom teaching innovation.

- 1) Student centered, problem based learning fosters active learning, improves understanding and retention and develops long-life learning skills.
- 2) Integration, problem based learning facilitates and integrate core curriculum
- 3) Motivation, problem based learning Is fun for students and tutors and the process requires all students to be engaged in the learning process
- 4) Generic Competencies, problem based learning allows students to develop generic skills and attitudes in their future practice.
- 5) Deep Learning, problem based learning foster deep learning (students interact with the learning, relate concept to everyday activities, and improve their understanding)

6) Constructivist approach. Students activate prior knowledge and build on existing conceptual knowledge frameworks.

Disadvantages:

The weakness of PBL is that students get confused in the learning process and PBL implementation takes more time to prepare and the groups made by the teacher are imbalanced or several groups consist of students with contrast level skills (Ermawati & Ghufron, 2018). Regarding the need for more time and preparation of case materials that teachers must prepare, this is one of the shortcomings of the application of this method. One of the main objections to Problem-Based Learning has, after all, been that courses taught in that way cover less actual content than traditional lecture-based ones. Though it has been said that the concepts of PBL can be applied to any academic discipline, language fields obviously constitute a large challenge. The advantages are nonetheless many, but the objection of the implementation is inevitable.

2.7 Theoretical Assumption

There are several techniques in teaching writing for English as a foreign language. There have been many techniques applied by the teachers in Indonesia to teach writing in a language lesson, especially English. In the complexity of writing itself, it is possible for the teachers to meet difficulties in teaching writing to their students, moreover in the language the students are not used to.

Students need to consider five aspects in writing therefore most students did not like writing. They find it difficult to express their ideas in a written form. In the

PBL class, students are engaged to apply their critical thinking skills, language use, and trigger their creativity during the process of solving the problem they are trying to solve.

The procedure and instructions in PBL lead the students to create a better piece of writing compared to not implementing any method to the learning activities. Where the students are being presented the cases or issues and are asked to analyze with the accordance of structured discovery stages which guide the students to find the way out. The students can pour their thoughts, opinions, and arguments through the argumentative text with the procedures of problem based learning methods to train their writing skills. With the combination of the three variables mentioned above, the teachers can manage the class activities not only into a fun, productive, and effective learning experience, but also train them to be able to face the problem they meet in real life which is a life-long skill needed by the students.

2.8 The Hypotheses

- . The hypothesis was built up based on the problem discussed in the first chapter.

 According to the theoretical assumption above, the hypotheses which were proposed in this research are concerned to:
 - 1. H1: There is improvement in students' writing performance after being taught with the PBL method.
 - 2. H2 : Organization is the most improved writing aspect in students' writing product after learning with the PBL method.

III. METHODS

This chapter presents several points of how the research was being conducted:

research design, variables of research, population and sample, research

procedures, research instrument, data collecting technique, validity and reliability

of the instrument, data analysis, and hypothesis testing. For more details would

be discussed as follows.

3.1 Research Design

This research was conducted with a quantitative method and using one-group

pretest post-test design proposed by Setiyadi in 2018. The subjects of this study

are the students of the second grade students in Senior High School of 14 Bandar

Lampung in the academic year 2021/2022. They are the beginner level students

who were enrolled in the second grade of senior high school level.

Furthermore, the researcher used a design for this research called the pretest post-

test design proposed by Setiyadi (2018). The design is illustrated as follows:

T1 X T2

T1 : Pretest

X : Problem Based Learning

T2 : Posttest

The research was conducted in five meetings. Firstly the students are asked to do a

pretest in the first meeting. After that there was a treatment received by the

students regarding the writing material with problem based learning methods.

Repeated Measure T-test was used to analyze the data of the first research

question. Meanwhile, to answer the second research question, the researcher compared the score of each writing aspect to know which one has the most significant improvement.

3.2 Variables of Research

According to Setiyadi (Setiyadi, 2006), variable is a noun that stands for variation within a class of object, such as gender, achievement, motivation, behavior, or environments.

3.2.1 Independent Variable (X)

The researcher considered that problem based learning was the independent variable in this research. The implementation of problem based learning methods towards the students can influence the dependent variable in determining the impact with the phenomenon and object of the research.

3.2.2 Dependent Variable (Y)

Students' achievement in analytical exposition text writing ability was categorized as the dependent variable. Students' writing achievement depends on the learning method they had before taking an output activity for the learning result. The achievements can be measured to determine whether or not there is an impact from the independent variable.

3.3 Population and Sample

The population of this research was the eleventh grade students at Senior High School of 14 Bandar Lampung. A class was taken as the sample with random sampling methods in this research for the experimental class. The class was determined by the researcher by using simple probability with a lottery. All the classes in eleventh grade were written on some small pieces of paper and the researcher took one out of them all randomly, with the purpose that all the class got the same chance to be the sample. Eventually, the eleventh grade class consisted of students with an age range from 16 to 17 years old which were involved as the participants of this research.

3.4 Research Procedure

The research was conducted in five meetings. The first meeting was to administer the pretest. The next three meetings were for the treatment implementation of the PBL method. The last meeting was for administering the post-test by giving instruction to students to create a piece of writing. Moreover, the procedures of conducting this research are as follows:

3.4.1 Determining problems

The problem was identified by the researcher observation to the students of Senior High School of 14 Bandar Lampung. Since she conducted an internship namely Pengenalan Lingkungan Prasekolah (PLP) there, an observation to the students she taught was run. She found out that most of the students are still difficult to express their ideas during the learning process, moreover in the written form. Besides, the limitation of time had the students to get little feedback both from the teacher and their friends as it took a long time to read all of the writing during class. As a result, they sometimes made the same mistakes in their next writing. That was why the researcher conducted a research on the implementation of

learning writing using PBL method to know its effectiveness in improving the writing competence.

3.4.2 Selecting population and sample

The population of this research was the eleventh grade students in Senior High School of 14 Bandar Lampung. The researcher chose a class which consists of 36 students.

3.4.3 Determining materials

The material was based on the senior high school syllabus which was derived from the K-13 curriculum for the second grader students in SMAN 14 Bandar Lampung. In this research the material was focusing on making a short analytical exposition text. However, there were some topics being discussed during the learning process in the classroom. The materials for teaching writing were delivered in the form of explanations which are provided by some pictures and video. Those materials were used to be the background for the students to construct writing. Moreover, during the pretest and post-test, the students were asked to make a short analytical exposition text with a theme given by the teacher.

3.4.4 Determining Pretest

In order to discover students' present knowledge in writing, a pretest was administered before the treatment was given. The students got the pretest in the first meeting while they still do not get the treatment yet. The students should make a writing product before being taught with the problem based learning methods.

3.4.5 Conducting Treatment

After administering the pretest, the treatment was subjected to the students. The students shall attend the treatment meetings three times. In this research, the writer used analytical exposition from argumentative text families with the implementation of problem based learning methods. During 3 meetings, the students had been learning writing which was guided by the teacher.

The stages of PBL was developed by modifying the model of PBL proposed by Arends (2008) which basically consisted of: Orient students to the problem, Organize students for study, Assist Independent and group investigation, Develop and present artifacts and exhibits, Analyze and evaluate the results of the problem-solving process. In the treatment of this research, a modification was made in the problem presenting stages and implementing an application after the stage of reporting to give students the chance to practice writing analytical exposition text in a process writing approach. The minor modification was made to adjust the model of PBL with the objectives of the course in which the present research was conducted. Besides, it is essential to minimize the modifications and stay consistent with the original model in order to obtain success in the implementation of PBL (Pluta et al., 2013).

Prior to the treatment, discussions were carried out regarding the procedures of PBL, the ways to present problems and how to manage the group discussion. However the teacher gave a brief guidance and instruction about the topic that students have to make. A PBL tutorial session begins by presenting a group of

students with minimal information about a complex problem (Barrows H. S., 2000).

On the first day of treatment, the teacher presented the concept of the problem with a certain topic. The students were served with some information to build their background knowledge about the problem. The stages of PBL methods were implemented in every meeting. Along with every learning step they had experienced, the students were expected to get accustomed to the scenario of how to learn writing skill in an EFL context with a problem based learning method. The students were asked to pay attention to the explanation of the steps that must be done in the process of making a piece of writing product. Several main stages in the writing process were demonstrated then some students were asked to be involved in topic cases such as choosing, clustering, drafting and revising.

The topic cases which were presented in the first day of treatment was the general big theme which also was leading into the derived topics they were about to write in further stages. The teacher gave the linguistics, grammar rules, word choice, meaning and other language features that students ask or need to know to help them arrange their final writing products. Meanwhile the ideas or opinion items were completely based on students' creativity. The teacher was not the only source in this type of learning method. When the students were in the process of making their writing, the teacher walked around to offer some help while also monitoring the learning activities in the classroom. In other words, the teacher acts as a facilitator rather than a solution source to the problems that students were trying to solve.

3.4.6 Conducting a Posttest

In the last meeting, a post-test was given to students in order to find out the enhancement of students' writing performance in writing an analytical exposition text after getting the treatment. The students made their writing product with the PBL methods they have learnt. The learning results were in the form of score data which later would be used by comparing it to the pretest score. The writing products were examined by the teacher with the five aspects of writing conducted in the pretest.

3.4.7 Analyzing The Result

All of the tests were assessed based on the writing aspects from Jacobs (1981). Then, the scores were compared to see students' progress from the first test to the second test. However, there were two raters who examined all of the students' writing from two tests. The first rater was the author herself and the second one was an English teacher of the subject. Furthermore, the results of the writing aspect were also investigated to know the improvement of each of them.

3.5 Data Collecting Technique

In finding out whether the objective of this research has been achieved or not, the researcher used an instrument. The instruments used in this research were writing tests to collect the data. The test in the form of a written task was given to the students to obtain their writing scores. Moreover, students' scores were used to identify their writing enhancement. The data was being collected before and after they got the treatment in order to compare the significance of the PBL

implementation towards students' writing achievement. Likewise, for the second research question the researcher compared the students breaking down scores to the writing aspects to know which aspect was the most significant improvement after learning writing with this method. Then, students' writing products were examined with the five aspects in writing (content, organization, vocabulary, language use, and mechanics).

1. Pretest

The pretest was administered before the students got the treatment. It aims to find out students' achievement of analytical exposition writing before being taught with problem based learning models. In administering the pretest, the teacher asked the students to make analytical exposition paragraphs.

2. Treatment

After conducting the pretest, a treatment was given to the students which was conducted in three meetings. The students should attend the learning process three times. The kind of text that was learned by the students was analytical exposition text. Using provided syllabus and lesson plan, the teacher arranged analytical exposition text material to be explained in the classroom.

3. Posttest

The other test was also given to the students in the form of a writing task. The second test (T2) was to score students' writing achievement after getting the treatment. The result of the posttest was compared with the score of the pretest to know whether there was an improvement or not.

3.6 Research Instrument

The researcher used research instruments to figure out whether the objective of the research had been achieved or not. In order to gain data on the research, the research used some instruments to gain the data. In this study, the researcher used writing tests as the research instrument. The writing tests were divided into two, pretest and post-test. Both of the writing tests required the subjects to write an argumentative essay consisting of a maximum of 500 words by selecting one of two topics which would be delivered by the teacher. In addition to the prompt, the procedure of the method was developed along with the analytical exposition text characters. Meanwhile, for the scoring aspects, the researcher used a five-scale score which included "very good", "good", "enough", "less", and "low". Further, each component was weighed based on its level of importance; therefore content weighed 30%, grammar weighed 25%, for each organization and vocabulary weighed 20%, while mechanics weighed 5%.

3.7 Validity and Reliability of the Instrument

In this section there are two parts, they are validity and reliability. In conducting a research, checking the validity and the reliability is a must for the researcher. As mentioned by Setiyadi (2006). The quality of a test can be seen from the quality of the instrument validity and reliability.

3.7.1 Validity of Writing Test

Heaton (1991) defined validity as the extent to which it measures what it is supposed to be measured. Meanwhile according to Farhady & Hatch (1982)

validity is the extent to which an instrument really measures the objective to be measured and suitable with the criteria. The validity of a test shows how far the test measures what is supposed to be measured (Setiyadi, 2006). Hatch and Farhady (1982:281) added that there are two basic types of validity; content validity and construct validity.

a. Content Validity

According to Brown (2000), content validity includes any validity strategies that focus on the content of the test. Content validity is concerned with whether the test is sufficiently representative and comprehensive for the test. According to Setiyadi (2006) the material given is suitable with the curriculum. The material had content validity because the researcher arranged the materials based on the objective of teaching in syllabus for the second grade of senior high school students.

b. Construct Validity

Construct validity is needed for the instrument which has some indicators in measuring one aspect or construct (Setiyadi, 2006). If the test instrument has some aspects and every aspect is measured by some indicators, the indicators must have a positive association to one another. Writing has five aspects: content, organization, vocabulary, language use, and mechanics. Therefore, if the test had already measured with the five aspects the test had covered the aspect of construct validity. In measuring construct validity of the instrument (test), the second rater was involved in determining the reliability of each indicator.

3.7.2 Reliability of Writing Test

A test is considered reliable if the test has consistent results as stated by Farhady & Hatch (1982, p. 243) that the reliability of a test can be defined as the extent to which a test produces consistent results when it administers under similar conditions. Since the instruments being used in this research were in the form of writing tests, the researcher used *inter-rater reliability* in order to see the consistency of the test. Hence, in this research, the researcher collaborated with the writing teacher to assess students' writing based on the writing aspects proposed by Jacobs et al. (1981). The first rater was the researcher and the second was the eleventh grade English teacher in SMAN 14 Bandar Lampung. The researcher made sure that both raters used the same criteria in scoring students' writing test. After that the results from both raters were compared to determine the reliability. Furthermore, to see the correlation between two raters, the researcher used criteria devised from Jacobs et al (1981:90). Then, the results from both raters were compared to determine the reliability used *Rank Spearman Correlation* using SPSS 22.

Tthe Rank Spearman Correlation formula:

$$p=1-\frac{6\sum d^2}{N(N^2-1)}$$

p : Coefficient of rank order

d: Difference of rank correlation

N: Number of students 1-6: Constant number

(Hatch and Farhady, 1982: 206)

After the coefficient between two raters was found, the researcher analyzed the rank correlation was with the standard of reliability as follows:

1. 0.80000 - 1.0000 : very high reliability.

2. 0.60000 - 0.7900 : high reliability.

3. 0.40000 - 0.5900 : medium reliability.

4. 0.20000 - 0.3900 : low reliability.

 $5.\ 0.00000 - 0.1900$: very low reliability.

(Arikunto, 2006)

Based on the standard of reliability above, it could be concluded that the writing tests should be considered reliable if the tests reached the range of 0.60 to 0.79 (high reliability). Furthermore, the reliability of pretest and posttest in this research is presented below:

Table 3.1 Reliability of Pretest

Correlation	Number of Items (N)		
.968**	2		

From the table above, it is clearly seen that the reliability of the pretest is 0.968. Hence, it can be concluded that the pretest used to know students' prior ability is considered to have a very high reliability. On the other hand, the reliability of posttest is picturized on the following table:

Table 3.2 Reliability of Posttest

Correlation	Number of Items (N)
.981**	2

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Based on the second table, the reliability of the posttest is scored 0.981.

According to the specification of Arikunto (2006), if the value of the test is

0.80000 to 1.0000 it means that the test has a very high reliability level.

To sum up, the results show that both tests have a high reliability by getting the

score 0.971 for pretest and 0.983 for posttest. This indicates that all of the tests

have a good consistency of assessment results.

3.8 Scoring Criteria of Writing Test

There are five aspects that were tested in examining students' performance in

writing: content, organization, vocabulary, grammar, and mechanics. In evaluating

students' writing scores, the researcher analyzed students' writing product to find

out whether there was enhancement in students' writing ability after getting the

treatment. In determining the score, the researcher used the scoring system criteria

which was based on the rating sheet from (Jacobs, H.D., 1981) The scoring

aspects of the test is derived as follows:

1. Content : 30%

2. Language Use: 25%

3. Organization: 20%

4. Vocabulary: 20%

5. Mechanics: 5%

Aspects of Writing	Score	Criteria			
	30-27	Excellent to very good: knowledgeable, substantive through development of thesis, relevant to assigned topic.			
Content	26-22	Good to average: some knowledge of subject, adequate range, limited development of thesis, mostly relevant to topic but lacks detail.			
	21-17	Fair to poor: limited knowledge of subject, little substance, inadequate development of topic.			
	16-13	Very poor: does not show knowledge of subject, non-substantive, not pertinent or not enough to evaluate.			
Organization	20-18	Excellent to very good: fluent expression, ideas clearly stated or supported, succinct, well-organized, logical sequence, cohesive.			
	17-14	Good to average: somewhat choppy, loosely organized but main ideas stand out, limited support, logical but incomplete sequencing.			
	13-10	Fair to poor: non-fluent, ideas confused or disconnected, lacks logical sequencing and development.			
	9-7	Very poor: does not communicate, no organization not enough to evaluate.			
Vocabulary	20-18	Excellent to very good: sophisticated range, effective word or idiom choice and usage, word from mastery, appropriate register.			
	17-14	Good to average: adequate range, occasional error of word or idiom form, choice, usage but meaning obscured.			
	13-10	Fair to poor: limited range; frequent error of word or idiom form, choice, usage, meaning confused or obscured			

	9-7	Very poor: essentially translation; little knowledge of English vocabulary, idioms, word form or not enough to evaluate.				
	25-22	Excellent to very good: effective, complex construction; few errors of agreement, tense, number, word order or function, articles, pronouns, prepositions.				
	21-18	Good to average: effective but simple construction; minor problem in complex construction; several errors of agreement, tense, number, word order or function, articles, pro- nouns, prepositions but meaning seldom obscured.				
Language use 17-11		Fair to poor: major problem in simple or complex constructions; frequents errors of negation, agreement, tense, number, word order or function articles, pronouns, prepositions, and/or fragments run-ons, deletions; meaning confused or obscured.				
	10-5	Very poor: virtually no mastery of sentence construction rules, dominated by errors, does not communicate or not enough to evaluate.				
	5	Excellent to very good: conventions; few errors capitalization, paragraphing demonstrates of spelling,				
Mechanics	4	Good to average: occasional errors of spelling, punctuation, capitalization, paragraphing but meaning not obscured.				
	3	Fair to poor: frequent errors of spelling, punctuation, capitalization, paragraphing; poor handwriting; meaning confused or obscured.				
	2	Very poor: no mastery of conventions; dominated by errors of spelling, punctuation, capitalization, paragraphing; handwriting illegible or not to evaluate.				

3.9 Data Analysis

In order to get the results of this research, the researcher analyzed the data by using some steps as follows:

3.9.1 Data Analysis of the First Research Question

- 1) Scoring the pretest and post-test.
- 2) Tabulating the results of thescore of pretest and post-test.
- 3) Finding the mean of the pretest and post-test using this formula:

$$\mathbf{M}d = \frac{\sum d}{\mathsf{N}}$$

Md = Mean

 \sum = Total score of the students

 \overline{N} = Number of students

(Hatch, E. & Farhady, H., 1982)

- 4) Drawing the conclusion by comparing the means of the pretest and post-test.
- 5) Getting the improvement of students' scores in order to find whether there is a significant difference between students writing before and after being taught using PBL. To find the data, the researcher uses the formula below:

$$I = M2 - M1$$

I: the improvement of students" writing achievement

M1 : the average score of pretest M2 : the average score of post-test

- 6) Composing a discussion regarding the result.
- 7) Answering the first research questions by concluding the results of the analysis. According to Sosilawati (2012) means can show whether the test was too easy or difficult for the students In this research, the means showed whether the

treatments were successfully done or not. If the mean score was high, it means that the treatment was done successfully.

3.9.2 Data Analysis of the Second Research Question

- 1) Finding the means of pretest and post-test in each aspect of writing.
- 2) Analyzing the significant improvement of each aspect of writing
- 3) Comparing the means of the pretest and post-test.
- 4) Computing the data to SPSS22.
- 5) Drawing conclusions by comparing the N-gain score of each writing aspect.

3.10 Hypotheses Testing

The formula for testing the hypotheses of this research is:

$$H1 = Sig. < 0.05$$

H1: There is significant improvement of students' analytical exposition text writing achievement after being taught with the PBL method.

H2: Organization is the writing aspect that improves the most after they are taught with the PBL method.

The hypotheses were analyzed by using *Repeated Measure T-test* of *Statistical Package for Social Science* (SPSS). Then, to find out the second research question, the researcher compared students' writing product results to each five writing aspects to know which aspect has the most significant improvement.

3.11 Data Treatment

There are three basic assumptions that should be fulfilled in using *Repeated Measure T-test* analysis to examine the hypotheses (Setiyadi, 2018).

- 1. The data are an interval.
- 2. The data are taken from random samples in the population (non-absolute).
- 3. The data are distributed normally.

To know whether the data are normally distributed or not, the researcher applied *Shapiro-Wilk Formula* with the hypotheses stated below:

H0: The distribution of the data is normal

H1: The distribution of the data is not normal.

The level of the significance used is 0.05. H0 is accepted if the results of the normality test is higher than 0.05 (sign > 0.05). Moreover, the results of the normality test is shown on the table below:

Table 3.3 Test of Normality

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pretest	.091	36	.200*	.956	36	.164
Posttest	.122	36	.193	.940	36	.094

^{*.} This is a lower bound of the true significance.

Table 3.3 proves evidence that both of the data are distributed normally. The value of normality test in the pretest is 0.164 while the value of normality test in posttest

a. Lilliefors Significance Correction

is 0.94. It can be assumed that H0 is accepted as the data from both tests are higher than 0.05. So the tests are proven to have normal distribution.

In short, this chapter covers the methodology of the research which concerns research design, variables of research, population and sample, research procedure, data collecting technique, research instrument, validity and reliability of the instrument, scoring criteria of writing test, data analysis, hypothesis testing, and data treatment.

V. CONCLUSION AND SUGGESTION

This final chapter focuses on the discussion of two points. First, the conclusion of the research findings. Second, the suggestions for English teachers who want to implement problem based learning in teaching writing and another researcher who wants to conduct an investigation in the same area.

5.1 Conclusion

- 1. The research conclusion is presented according to the data which have been analyzed in the previous chapter. The use of problem based learning as the method for teaching writing can improve students' writing competence especially in constructing an analytical exposition text. The students got higher scores after getting the treatment in which the mean of posttest (70.44) was higher than the mean of pretest (60.22). The score of the t-value of the result analysis was above the t-table (7.595 > 2.0301). The increase happened because the implementation of problem based learning could provide situations as stimulation for students to think critically which is beneficial in developing their ideas. As a result, the students were able to construct their writing flexibly. Likewise, the discovery stages in problem based learning can be flexible adjusted in any kinds of writing types.
- 2. The implementation of problem based learning methods also gives a positive impact to the aspects of writing, particularly organization. It was believed to be the most improved aspect among the others. Having the

gain of 0.375, the mean jumped from 14 on pretest to 16.25 on posttest. The use of problem based learning had the students to be more structured in arranging the ideas by considering the relevance of the arguments.

5.2 Suggestion

Relating to the conclusion above, the researcher would like to present some suggestions that should be considered in applying problem based learning.

1. English Teacher

- a. The teacher should be able to modify the learning activities to focus on the language skills which is going to be assessed or improved.
- b. The advantages provided in problem based learning such as critical thinking skills should be utilized optimally by the teacher especially in teaching writing. It can be modified to be the stages in giving the material, having a discussion and also increasing students analytical thinking skills.
- c. Some students might find it hard to link their hypotheses or arguments to the topic discussed during the class. They tend to be reluctant to participate in the learning activities in the classroom. Hence, it is suggested that teachers should give motivation and reinforcement to the students during the process of learning.

2. Further Research

- a. The researcher can investigate the use of problem based learning to teach other skills such as listening, reading, and speaking.
- b. Other factors may affect the result of students' writing such as gender, personality and level of competency. It is possible for the researcher to

- analyze the effect of those factors on the students' writing skill taught with a problem based learning method.
- c. The investigation of the learning process should be elaborated in order to know students' difficulty. As a result, the researcher can provide this study with some solutions during the implementation of problem based learning.

After all, those are the conclusions of this study after implementing a problem based learning method. Moreover, the suggestion can be accounted for to conduct further research with respect to problem based learning. The teacher can also maximize the use of problem based learning in order to create a better learning situation.

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