

## Improving Students' Critical Thinking Skills through Project-Based Learning (PBL) in General English for Pre Intermediate 4 Class in LB LIA Palembang: A Classroom Action Research

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### Abstract

This study aims to find out whether applying Project-Based Learning can improve students' Critical Thinking skills in General English for Pre Intermediate 4 class in LB LIA Palembang, a Non Formal English Language Institution in Palembang. The study was conducted as a classroom action research. There were 20 students who participated as the samples of the research. The data were collected through observation, questionnaire and interview. Then, the data were analyzed. The results showed 17 out of 20 students (85%) get the desired level of Critical Thinking skills. Based on the interview, all students have positive understanding of Project-Based Learning model. In conclusion, PBL has an influence in improving students' critical thinking skills. Further study needs to be conducted to give more positive impact to society.

**Keywords:** *Critical Thinking Skills, Creativity, Project-Based Learning, GEP 4*

### INTRODUCTION

The world changes constantly. Students need to prepare for the changes. Students must prepare for skills needed for the 21st century. This is especially true for today's high school students. One of the skills students need to be independent learners is Critical Thinking. This skill will help them to cope with university life. However, due to teacher-centered classroom, critical thinking skills are often neglected. To be independent learners, students should be able to separate facts from opinions and verify accurate information. Based on preliminary observations of research conducted at LB LIA Palembang, a non-formal English Language Institution in Palembang, several problems existed concerning their critical thinking skills, including difficulty to attempt to provide reasoning when in discussions, struggle just to echo friends' answer and no idea about the topic of discussion and difficulty in combining the information they know and information they got before making decision, which resulted in low critical thinking skills.

Based on this phenomenon, learning model to improve students' critical thinking skills should be considered. Project-Based Learning (PBL) is one of learning models which helps students to engage in using higher order thinking skills. Students learn better if they are engaged in meaningful activities. As Franklin stated "Tell me, and *I will* listen; *Teach me*, and *I'll* remember; *Involve me*, and *I will learn*." Stated that this model is appropriate for students from elementary to university level [1]. PBL facilitates students to work together on conceptual understanding, to apply prior knowledge, and to acquire skills. A number of disciplines can be integrated to create a project [2]. Furthermore, other benefits of PBL are enabling students to demonstrate higher skills [3], improving students' achievement [4], challenging students to solve real problems, becoming a good collaborator [5], motivating students (Liu, 2010), improving content knowledge, and meeting the needs of students with variety of skills and learning styles[6].

Critical thinking refers to the ability to think rationally and reflectively. Thus, it helps individuals decide on what to believe or do [7] through intellectual processes in conceptualizing, applying, analyzing, evaluating information leading to creation [8]. Students

use these skills to solve problems in new situations, to make inferences and generalizations, to combine the information in new patterns, and to make judgments based on evidence. Jirana et al (2020) conducted a research "Implementation of Project Based Learning (PBL) Model for Critical Thinking Skills and Creativity Stimulation as a Prospective Biology Teacher. The result of observation data analysis indicated that the use of PjBL model gave influence on learning process. In this study, particularly, researchers examined Project-Based Learning model to improve critical thinking skills of students in General English for Pre Intermediate 4 class in LB LIA Palembang, a non-formal English Language institution in Palembang, Sumatera-Selatan, Indonesia.

## METHOD

This study was conducted as a Classroom Action Research (CAR) because this method helps teachers investigate into what techniques best cater the students' needs. That classroom action research is used since it can solve learning problems and allow the use of certain teaching techniques to improve learners' ability [9]. Cited in Mett et al stated that Classroom Action Research is a way of finding out what works best in our class so teachers can improve their students' learning performance [10].

Action research is carried out by one or more individuals or group of individuals whose aim is to solve a problem (based on daily problem faced by the teachers in class) or get the information to be shared with other fellow teachers [11]. States that the result of the action research can be used to give positive impacts on education world, especially on promoting productive learning environments [12].

). They proposed a spiral model comprising four steps as follows: 1) Plan, 2) Act, 3) Observe and evaluate, and 4) Reflect. After planning the teaching and learning activities, the researcher applied the Project-Based Learning (PBL). Next, observation and evaluation in the classroom were done by both students and teacher. Reflection was conducted after the action. Reflection is a muse about action which has been done by the researcher so that the researcher can re-plan what to do in the following cycle [13]. Researcher discussed the weaknesses to the collaborator because the collaborator knew more about the weaknesses and strength of treatment.

The subjects in this study comprised of General English for Pre Intermediate 4 class in LB LIA Palembang, a non-formal English Language institution in Palembang, Sumatera-Selatan, Indonesia. There were 20 students participated in this study. They came from high schools in Palembang. These students have been studying in LB LIA Palembang for nine months. GEP 4 is the terminal level in General English for Pre Intermediate. In General English Program, the materials are designed to assist high school students in their current studies by training them in the specific language skills for both academic and interactive purposes, thus preparing them for the future. In a nutshell, the program will enhance students' English proficiency to meet their present study needs as well as prepare them for future academic and career challenges [14].

The observation results were analyzed by tabulating the five indicators 1-5 with 1 being never manifested and 5 always manifested including the use of various types of reasoning; the analysis and evaluation of evidence, arguments, claims and beliefs; the synthesis and connection between information and arguments; the interpretation of information and conclusion based on the best analysis; and the critical reflection on learning experiences and processes.

From the result, the writer found out that less than 16 students can reach the percentage of 70% or more. As many as 10 students belonged to the category ranges from 60% to 70%. It indicated that only around 50% could reach the desired level of critical thinking skills. The results showed that students in the class still need to improve their critical thinking skills. As can be seen from the table, only 10 students reached 70% or more. Another ten students reached more than the desired level. Unfortunately, the class' overall performance on the critical thinking skills was still under 80%.

## RESULTS AND DISCUSSION

The study started when the problems were found in GEP 4 class. Questionnaire was then distributed to assess students' initial conditions relevant to their critical thinking skills. After that Project-Based Learning (PBL) was applied. The study was conducted in 3 cycles. Each cycle consisted of four meetings and each meeting lasted for 90 minutes. The procedure of each cycle was as follows:

1. In the first meeting, the learners were to understand the lesson through PBL model.
2. In the second meeting, the learners were to understand the lesson through PBL model.
3. In the third meeting, the learners were to understand the lesson as through PBL model.
4. In the fourth meeting, the learners created a project.

The questionnaire was distributed at the end of each cycle to record the students' improvement in critical thinking skills. Based on the data collected, the findings in cycle 1, 2 and 3 revealed variations in students' critical thinking skills percentage.

**Table 1. Summary of Students' Improvement**

NO	NAME	Cycle1	Cycle 2	Cycle 3
1	DAYSTA KHUMAYRAH	72%	72%	76%
2	ANINDYA AZZAHRA	68%	72%	76%
3	IGNATIUS HECTOR HANDOKO	52%	56%	60%
4	AYU CALLISTA RIADITASSANIYAH	88%	88%	92%
5	SARI EQI CANTIKA	60%	72%	72%
6	NASWA AZZAHRA	88%	88%	88%
7	NABILA ZAHRA KARIMAH	76%	76%	80%
8	SYIFA PUTRI CALISTA C	60%	64%	72%
9	DIMAZ RAJENDRA HERYANTO	52%	56%	56%
10	NASYWA AYU M	92%	92%	88%
11	M. HADI DWI PUTRA	72%	76%	76%
12	MUHAMMAD RAFIF YUVINZA	80%	80%	80%
13	SYALFINA NURZAHWA INDRAILY	60%	68%	72%
14	RILZKY NOVRIALDI PRAYOGA	76%	76%	76%
15	BERLIAN SELLA AGHATA	72%	72%	72%
16	DINA MUTIARA	52%	56%	52%
17	ALYA ARRAODHA	64%	64%	72%
18	DANIA NIRMALA	68%	72%	72%
19	FADHILLA FITRISARI	72%	72%	76%
20	KHALISA MUTHIA PUTRI	68%	72%	76%

From the findings, some steady improvements were evident. Students' critical thinking skills were classified into 5 levels: not critical at all, not critical, somewhat critical, critical and very critical. In the first cycle, only 50% of the class or 10 students achieved the desired level of critical thinking skills. Another 10 students fell into the category ranging from 52% through 68%. They belonged to "somewhat critical" level. In the second cycle, however, there was a significant increase to 70% of the class performance or 14 students that could achieve the desired level of individual critical thinking skills. Out of 14 students, 13 belonged to the category of "critical" and only 1 student belonged to "very critical" level. Meanwhile 6 students still could not achieve significant improvement. In the last cycle, 17 students or 85% of the class improved their critical thinking skills. Although three other students showed improvement, their overall performance could not achieve the desired level of critical thinking skills.

Based on the result of the interview, all 20 students gave positive feedback about Project-Based Learning. Most of the responses were about how this learning model gave them more opportunity to work in a group, engaged in discussion in detail about the project, helped them understand the topic better and improved their motivation.

## CONCLUSIONS

The following findings are obtained based on the discussion of the study results: (1) the application of Project-Based Learning in General English for Pre Intermediate 4 class improved students' critical thinking skills. From the first cycle through the third cycle, students experienced changes in their critical thinking skills. There was a significant improvement of class performance from 50% in the first cycle to 85% in the last cycle. The interview result obtained from students confirmed their positive feedback of Project-Based Learning model as one of the learning models that can improve 21<sup>st</sup> century skills like critical thinking.

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