

Do Learners Like Project in Their English Classes?: Impact of PBL on Students' Attitudes

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Abstract. This article presents the results of a study on the effect of Project-Based Learning (PBL) on students' English language learning (ELL) attitudes and how the activities influence teaching-learning process in a junior high school in Bali. This research applied an embedded mixed-method design in which the quantitative data were collected using close-ended questionnaires test, and the qualitative data were collected using interview, observation checklist, open-ended questionnaire, and field note. Paired-samples t-test was used to analyse whether or not there is a significant effect on students' attitude after being taught using PBL, while the qualitative data were analysed descriptively. The analysis shows a significant effect on students' attitude. PBL enhances students' learning quality in term of enthusiasm, confidence, and creativity learning ability while it also promotes teacher's teaching satisfaction. This study supports the implementation of PBL which enhances students' English Language Learning attitude and teaching-learning process.

1 Introduction

In 21st century learning, collaboration, critical thinking, creativity, and communication ability are the keys that students should have in order to be able to compete in the future [1, 2]. Students are demanded to be able to effectively analyse, evaluate facts, and communicate their thoughts or ideas using oral and written communication skills. Those abilities are being activated through collaborative learning which acquired the students to demonstrate their skills to work effectively in diverse society. The involvement of students' creativity is expected in order to achieve the aims of the study to help students to create new ideas or innovation.

Students' attitude is also considered as one of the important factors that can influence students in achieving the knowledge [3, 4, 5]. Learners' attitudes reflect their emotional involvement such as values and believes about certain educational situation [6]. Attitude is also classified into three different components, such as behavioural, cognitive, and affective attitude [7]. In language learning context, the behavioural component of students' attitude is defined as the tendency of the students to follow or adopt some particular learning behaviours. The cognitive competent refers to the students' beliefs, thoughts, and point of view about the learning while affective competent is stated as the students' feelings and emotion towards the language learning process.

PBL is one of the strategies that are potentially used in 21st century learning activities. In PBL, students learn the knowledge by working on the project, while they are demanded to plan, implement, reflect, and evaluate their own learning by working on task that reflects real-life issues [8, 9]. Students enquire some specific objects to answer challenging problems that are designed to give opportunities to the learners to activate their critical-thinking. In PBL, students' innovation is promoted through the activity of obtaining data by using multiple sources of information, such as technology tools [10].

PBL is one of the keys of strategies for creating independent thinkers while also promotes students to collaborate with others [11]. Students take responsibility by pursuing, reviewing, and responding to the feedback of their own learning [12]. Their communication skill is activated by some activities such as discussion and reflection. In discussion, each of the students shares and negotiates his/her idea [13]. While figuring on how well they work collaboratively, the students also reflect on how well they express their contribution and listen feedback to reconstruct their project [11].

The theory of 21st century learning acquires a new way of learning especially in Indonesia. Instead of focusing on teacher-centred, the students-centred learning should be carried out in teaching and learning process [14]. It is very unfortunate that in fact there are some teachers in Indonesia who do not implement any kind of strategies that reflect the 21st century learning such as PBL. Instead of using an effective learning strategy, the teachers choose to implement a conventional strategy which is based on teacher-centred learning. The facts were found by many researches that were administered in Indonesia. Some previous researches [15, 16] stated that the lack of teachers' knowledge and implementation on alternative teaching strategies caused students' low attitude in learning. The students were found unmotivated and had less creativity in joining the learning process.

In the preliminary research, teacher-centred was carried out throughout the learning process. The learning was conducted monotonously using single source (i.e. students' worksheet). The teacher mostly used direct instruction method in guiding students to answer some questions which were written in the book. From the open-ended questionnaire, the researcher found that the students considered the class activities as boring. The interview with the teacher confirmed the teaching strategies that mostly used were repetitive and lack of varieties.

Those problems inspired the study to implement PBL as a reflection of 21st century learning. Previous studies found the relation between PBL and students' motivation and attitude, for example a research which was done by Konrad [17] who found a significant effect on students' achievement and motivation towards algebra learning. The data of her research showed substantial increase in students' attitude on learning math. Another study which was done by Tseng, et al [18] showed that students' attitude towards engineering learning was increasing significantly after being taught by using PBL.

Those studies prove the benefits of using PBL on students' attitudes in learning. The studies that have been conducted previously were not specified in teaching English class and investigated PBL instructions effect on teaching and learning process. This study focuses on answering two research questions: (1) Is there any significant effect PBL on students attitude towards English language learning ?, (2) How PBL instruction influence teaching and learning process?

2 Method

This research administered embedded mixed-method design. Both of quantitative and qualitative data were collected separately approximately at a single phase of study. Twenty-eight students were the participants of this study. The effect of PBL on students' attitudes towards English Language Learning (ELL) was analysed by using quantitative test. The quantitative data play superior roles which are collected through close-ended questionnaire before and after intervention, while interview, observation checklist, open-ended questionnaire, and field note were used to collect the qualitative data. The close and open-ended questionnaire was constructed based on the 3 components of attitude towards ELL namely behavioural, cognitive, and affective attitude. The influences of PBL on teaching and learning process are presented by the qualitative result of this study. In analysing the data, paired-samples t-test was used on the quantitative result while the qualitative data was analysed by using Miles and Huberman's flow model.

3 Findings and Discussion

In embedded mixed-method design, quantitative and qualitative data were collected in single phase of study. The first question was answered by the result of quantitative data. The close-ended questionnaire as quantitative data were analysed in order to find out whether or not there is a significant effect of students' attitude on ELL after being taught by using PBL. The questionnaire consisted of 35 points of questions which were developed based on Wenden's [7] theory namely behavioural, cognitive, and affective attitude. The findings are presented below.

3.1 The Effect of PBL on Students' English Language Learning

Paired-samples t-test was administered to analyze the first question of the study. The close-ended questionnaire was distributed twice, before and after the PBL implementation in order to find out the significant difference of students attitude on ELL. The result of the paired-samples t-test are presented below.

Table 1. Result of Attitude Questionnaire Paired-samples t-test

Questionnaire Test	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Before Treatment – After Treatment	-28.679	19.226	3.633	-36.134	-21.224	-7.893	27	.000

Paired-samples t-test was used to analyzed the data from close-ended questionnaire in order to answer the first question of the study. As displayed in Table I, $t = -7.893$ and the significant value of 2-tailed is .000. If the standard of significance is 0.05, it indicates that there is a significant effect on students attitude towards ELL after being taught using PBL.

The open-ended questionnaire was also distributed in order to find out students' attitudes towards ELL after being taught using PBL. The set of open-ended questionnaire covers 3 components of attitude on ELL namely behavioral, cognitive, and affective attitude. There are 3 questions which represent every component of attitudes itself. It was

found that PBL positively influences students' attitudes towards ELL in term of behavioral, cognitive, and affective attitude which are presented in the following quotation: *"I want to learn more about English because it becomes more interesting for me. In the future, I will try my best to give a better presentation about my group work."* (S08/M)

The previous quotation indicates that there is a change of students' behavior on ELL. Before the PBL was carried out in the classroom, the students demonstrated the unwillingness to learn by showing their passiveness in the classroom. It was also reflected through the open-ended questionnaire answers which defined that more than one quarter of the total students had willing to join and do the activities (i.e. listening to the teacher's lecture and answering the questions on the book). After being taught using PBL, the learners tended to adopt positive particular learning behavior as evidence on the previous quotation.

It was also found out that the students perceived English learning as a hard thing to learn before the intervention of PBL. The strategies which were used previously by the teacher seemed to give students some disadvantages. The evidence of the open-ended questionnaire result which represents by the following quotation proved it: *"Before, I thought I would never have any interest to learn English because it was boring and definitely not attracting for me. However, now I do think that I will have different perspective on English class, because it becomes more fun and interesting and there are so much things that I am able to do beside just answering questions like usual. I am also very glad because it seems like it is fine when I accidentally make mistakes."* (S17/F). From the previous quotation, it was also discovered that the students' perspective became more positive towards English learning after being taught by using PBL as presented on quotation above which indicates that the students see the learning activities as a fun process. It also changes students' perspective, instead of just acquired to answer the task correctly, the students also perceive the project as a whole process of learning and try their best effort in doing project without really focusing on some mistakes that appear along the process of learning itself.

PBL was also proven to affect students' feeling on ELL. Before PBL was implemented in the classroom, the students' open-ended questionnaire result shows that they tended to feel weary towards the learning. The students was used to learn by focusing on the text-book in which they were asked to listen to their teacher's lecture and presentation about a subject, and finally answered the questions related to the subject. Those conventional method clearly did not work to promote students' attitude on ELL. After being taught using PBL, students feel differently by demonstrating their positive feedback on the affective attitude. They experience PBL as a fun and exciting activities to do in learning English. The finding is represented by the following quotation: *"I feel so excited when I made public figure's biography because I had chance to do some interesting activities such as cutting, gluing, decorating the biography, and sharing my idea."* (S07/M)

Those findings are in line with Wanchid and Wattanasin's [19] study. Their research showed that the students achieved high to moderately positive attitude after being taught using PBL in their English class. The students gained their own autonomy in learning. It means that the students were able to have more power to direct their own learning without being neglected or disregarded.

The data presented above show the significant value of 2-tailed was less than 0.05 ($0.000 < 0.05$). The findings are also supported by the students' open-ended answers which indicate the students' positive feedback on their attitude towards ELL. Therefore, it can be concluded that PBL has a significant effect of students' attitude toward ELL.

3.2 The Influence of PBL on Teaching-Learning Process

In order to answer the second research question on how PBL influences teaching and learning process, the observation checklist was used to check if the teaching and learning procedures had been in conformity with the principles of PBL implementation. These data were also supported by the field notes.

From the observation checklist, it was found that the students showed positive attitudes toward the teaching and learning process which was conducted based on PBL instruction. They showed active participation on the discussion by giving their attention, ideas, and contribution to complete the project. They were also able to appropriately place themselves in a group by doing and finishing each of their tasks as a member of the group.

The findings showed that PBL could promote students' enthusiasm which was noted on observation checklist. The observation checklist result shows that students were actively participated in the learning process. The significant evidence was also shows students' response to the open-ended questionnaire which is represented by following quotation: *"The activities are so challenging and also exciting for me. I wish we have more project to do like this in the future"*(S19/M)

The following picture demonstrates the students' enthusiasm in joining the classroom activities. The students actively contributed in doing group work by completing their own responsibility as a team member in order to produce the final result of the project. They were all actively engaged and involved in the process of creating the final product of the project.



Fig. 1. Students' enthusiasm in joining in the classroom activities.

Rochmahwati [20] also found out that there was a positive effect of PBL implementation on students' enthusiasm. She analyzed students' enthusiasm during teaching and learning process through the interview on the students and the lecture of speaking II subject at STAIN Ponorogo. The students significantly improved their attitude and skill along the process of learning.

Also, the result shows that PBL could promote students' confidence in their learning process. The learners were placed in the condition where they needed to work as a group. They were given chance to contribute in the group work by stating their ideas, comments, and addition in order to complete the project. The finding is represented by the following quotation: *"I feel more brave and confident in stating my idea to my teammates, the teacher, and every one in the class."* (S27/M)



Fig. 2. A student bravely presented her work in front of the classroom.

The image illustrates students' presentation in front of the classroom. All of the students were able to present their work without hesitation. They did not seem to worry about making mistakes in the process of learning. The active participation of all students during the discussion and presentation supports the previous data which is proposed to analyze the influence of PBL on students' teaching and learning process in term of their confidence. Students' level of confidence is one of the important aspects that support their communication (oral and written) skills during the process of learning itself [21, 22].

Based on Pinzon Castaneda [23] who explored that PBL was able to enhance students' self-confidence. It showed that students felt more confident when they were exposed to the speaking activity which acquired them to communicate on different topics during several presentations about the project. Self-confidence is also stated very beneficial for the students because it normalize the mistakes that students would possibly make. Even though students were struggling and making some mistakes in the process of learning, they would accept that as normal and appropriate along the process of mastering the knowledge.

Students' creativity is also influenced by PBL instruction. The students were given chance to develop their higher thinking skills through the projects which are implemented in the classroom. The students were able to express their idea which full of creativeness and carried it on the project that they worked on. The finding is represented by the following quotation: *"I am so happy to able to make the project as creative as I could by using every information that I have about my family and relative identity. I am also able to write many things about them in my album. The decoration is precisely like what I want it to be."* (S03/F)



Fig. 3. Students' final products of a project activities (Family Album).

The students' creativity is represented by the image of the result of a project above. The students were given chance to explore their higher thinking skills by being allowed to express their idea about how the project should be done. The products which were created from the activities reflected the students' effort to produce an excellent product based on their perspective and interest despite the mistakes they could possibly make.

The students were also given chance to use multiple resources in order to finish their work. As found on students' product which is presented in Figure 4, it represents the students' biography works. They were required to use internet, magazines, newspaper, etc in order to finish the product. They were allowed to see examples of some innovative biographies as wall displays on the Internet in order to make the draft and layout of their own biography.



Fig. 4. Students' final products of a project activities (Biography)

The similar finding was also found by Mihardi, Harahap, and Sani [24] on their research entitled "The Effect of Project Based Learning Model with KWL Worksheet on Student Creative Thinking Process in Physics Problems". It was found that the students were creatively working on the project when they were taught using PBL. The findings showed by the result of analysis on the students' average value who were in the experimental class was higher than those who were in the control class. PBL was stated as a successful method to be carried out to activate students' creative thinking in finishing the project.

The qualitative result also shows that PBL influences teacher's teaching satisfaction on the students' learning experience result. The teacher was also satisfied by other factor such as the teaching material (projects), activities, and students' feedback on the activities itself. The following quotation represents the influence of PBL on teacher's teaching satisfaction, "I feel so glad by the students positive response on the activities. They are actively engaged and willing to join the classroom. It fulfils my expectation on how the learning process should be done in my English class." (Teacher)

Hixson, Ravitz, and Whisman [25] also found consistent findings on their research. The teacher experienced a satisfying process while developing their professionalism to become familiar with the implementation of PBL. It gave them a feeling of satisfaction towards their profession as a teacher.

4 Conclusions

Quantitatively, this research found that PBL significantly affects on students' attitude towards ELL. Qualitatively, it also shows the influence of PBL instruction on the teaching and learning process. The statistical findings show that there is a significant effect of PBL

on students' attitude towards ELL. In addition, PBL also promotes students learning process by enhancing their enthusiasm, confidence, and creative learning ability. From the teacher's point of view, it enables him to enhance his satisfaction in teaching English.

Practically, the result of this study presents practical reference for effective teaching. Firstly, considering on the significant effect of PBL on students' attitude towards English language learning, PBL is recommended to be carried out by the teachers in the English classes. PBL also successfully enhanced the teaching and learning process by promoting the students' enthusiasm, confidence, and creativity learning ability while it also promotes teacher's teaching satisfaction. The Indonesian government is also expected to facilitate teachers' with more knowledge about valuable methodologies that can be implemented in the classroom which promotes the 21st century learning skills such as PBL. Finally, for the future study, it is expected that there will be more research on PBL in different level of English as Foreign Language setting.

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