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## The Correlation Between PBL (Project-Based Learning) and Learning Motivation in ELT Classes

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### ABSTRACT

In recent times, learners are required to have the skill of the 21st century, such as collaboration, critical thinking, communication, and technology used as the impact of a more digitized and globalized era. One of the teaching methods which equipped student's skill needs is PBL (Project-Based Learning). PBL is also named the effective method to apply because students are asked to create their learning content as the implementation of student-centered learning. This teaching method is widely used at any educational level and could enhance students' motivation. Thus, to determine the correlation between the PBL teaching method and students' learning motivation, the researcher conducted a study of 67 students in 11th grade at SMA Panjura Malang that opts for a correlation method with a quantitative approach. The questionnaire was adopted and analyzed, it showed that there is a correlation between the PBL learning method and students' learning motivation in ELT classes. The result was a medium positive relation which means that PBL could be an alternative recommended method to apply in ELT classes.

## 1. Introduction

The new paradigm in the 21st Era promotes that student must have the following skill; collaboration, critical thinking, communication, and the use of technology. In terms of changing life over the past years, students have to equip themselves with 21st-century skills because the world has been more globalized and digitized (Brown et al., 2008; Wongdaeng & Hajihama, 2018). Therefore, the role of English teaching and learning is substantial during this challenging life. The teaching method applied by the teacher in the classroom will be a bridge for students to achieve their learning goals and foster the skill. Project-based learning (PBL) became one of the learning methods that has already been applied in learning activity in junior high school until university students. PBL as its name refers to the teaching approach that organizes the students to learn by doing a

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project. Differing from traditional classroom, PBL brings focus on the learners by collecting and analyzing information through group discussion to produce a project. This environment would place learners with long-term goals (Solomon, 2003; Thomas, 2000; Wongdaeng & Hajihama, 2018). Howard, (2002); Shin (2018) has pointed out that, based on Dewey's empirical philosophy, PBL is a method that involved students learning problem-solving through activity in an assigned project. Its characterized by worthwhile activity, learning, decision-making, and problem-solving. Ahmad (2021) also demonstrates that PBL is a learning approach that allows students to plan their own learning activities, collaborate on group projects, and create products that may be shared with others. PBL is a "Project Work by student-centered and driven by the students' need to create an end-product" (Bell, 2010); Ayu & Yuliansyah, 2021, p. 33). To be concluded that, Project-Based Learning is an innovative teaching model that focuses on student-centered, collaboration, investigation, and allows the students to explore real-world challenges to produce a project.

This practice has been conducted by many researchers as an effective method to improve student learning motivation during COVID-19 by choosing their interest and building up their abilities (Ayu & Yuliansyah, 2021). Additionally, study in higher education also proved that PBL could enhance learners' positive attitudes towards learning English (Wongdaeng & Hajihama, 2018).

PBL enables the students to organize their own learning content which is mentioned as student-centered learning. "PBL is an approach anchoring learning and teaching in being student-centered, collaborative work on solving authentic problems" (Liu, 2016, p.140). Fostering learners through collaborative work and challenging projects could come up with their motivation and self-direction (Wahyudin, 2017). According to expectancy-value theory (Eccles & Wigfield, 1995; Shin, 2018) motivation can be defined as a combination between human needs and goals to meet the direction that encourages them to repeat a behavior. Especially, in this turned situation from teacher-centered learning to student-centered learning, students are invited to motivate themselves to attain their learning achievements. Because motivation is the key to the learning process (Purnama et al., 2019). Notably, in learning a second language, motivation plays a substantial role in creating a joyful and comfortable atmosphere in the classroom.

This teaching approach is not a new concept whereas, it is considered as an effective method to drive learners to become active participants during the learning activity (Wongdaeng & Hajihama, 2018). In the previous research conducted by Ahmad (2021) in Sekolah Alam Cikeas from grades VII until IX, PBL was implemented for learning that leads to the environment, plants, animals, and local communities. This teaching method has been applied for two semesters, in the first semester students are directed to observe animal cultivation or waste management and in the second semester, the learning product is to practice what was observed in the first semester and also write down the results of the observations made. The benefits resulting from the implementation of PBL for schools and students, have been agreed, could increase students' positive attitudes such as logic, leadership, entrepreneurship, and student morale compared with

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other schools. Although the application of this method has been carried out outside the classroom and takes environmental objects widely, teachers have admitted that PBL can help students meet the developmental aspects such as; knowledge, attitudes, and skills. Secondly, a study by Wongdaeng & Hajihama (2018) reported the result obtained from questionnaire, that students with high achiever of grade 10 at the Demonstration School of Prince of Songkla University agree that projects are useful and foster the practice of English. Supported by a positive attitude towards learning English. In contrast, the low achiever students answered that they like to do the projects but find it difficult to contribute to a group discussion. Although, the answer gained from the two characters was different, the researcher indicates that PBL had succeeded in giving a positive impact on students in the collaborative learning process and discussion which involves communication skill.

In line with the previous research, Sudjimat et al., (2021) found in recent study that, Vocational student in Malang was highly motivated in WBL-SL (Work Based Learning-Service Learning) than a student in PBL class. In comparison, students with moderate and low achiever, and those with high prior knowledge are more likely to be motivated and achieve superior learning results. The results of the Two-Way Anova research model emphasize that high achiever students from PBL and WBL-SL class groups both have high motivation. However, the stage of the learning process has a slight difference, in the WBL-SL class the learning process begins with a group assignment and then observation of the field which is also applied as a form of community proposed (Siswanto, 2012; Sudjimat et al., 2021). While in the PBL class, students will work on their assignments individually after the project assignment has been explained.

Relating to this research, it is about students' perspective of PBL on their learning motivation in the classroom. This study is focusing on examining the correlation between PBL and learning motivation also the impact of implementing PBL in ELT classes.

## **2. Methodology**

### ***Research Design***

This study opts for correlation research with a qualitative approach. The goal of correlational research is to establish the magnitude of the correlation coefficient and the statistical significance of the relationship between a variable and other variables (significance) (Sukmadinata, 2011; Anita et al., 2022). This research used two variables; the paper-based questionnaire, and student's project result.

The participants of this study were 67 students of grade 11<sup>th</sup> at SMA Panjura Malang. The data was taken during an English lesson. PBL in this school has been applied for every meeting in English lesson. Then, to determine students' perspectives about learning motivation while implementing PBL teaching method,

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the researcher will distribute the questionnaire and give a brief overview of the research before the participants fill out the questionnaire.

***Instruments***

The instruments used were a paper-based questionnaire with 4 Likert-scale answers; strongly agree, agree, disagree, and strongly disagree. A questionnaire was adopted from Chang et al., (2018) in a “Learning Motivation” subscale as shown in the following table

Table 1. Learning Motivation Questionnaire

The Value of Project Making (Value)	a. The practical work I have learned from the project making will allow me to apply it to the real life b. I am interested in various English material that use project-based learning. c. I think the content of teaching material I learned from the project making will help me learn other subjects more confidently. d. I think the English material content applied by the project making will be of practical value
The Control Belief in Learning (Expectation)	a. If the learning method is correct, I can learn the English material content of the project. b. If I study hard in the class, I can understand the English material content of each teaching subject material in the project making applications. c. If I insist on doing the assigned project and completing it by the deadline, I can learn the content of my project.
Self-Efficacy Belief in Learning and Achievement (Expectation)	a. I believe I can get excellent results in project making. b. I believe I can learn the basic concepts taught in different English material. c. I believe I can learn the most complex teaching materials taught in different English material. d. I believe I can finish the end-product of the project making by the appointed time. e. I believe I can apply the project-making method taught to complete the project’s end-product.

Source: Chang et al., (2018)

***Collecting and Analyze Data***

The data collection taken in October 2022. In this study, students were asked to fill out a paper-based questionnaire which was distributed before the end of the lesson. The Reliability of learning motivation’s measurement tool was .922 (Cronbach  $\alpha$ ). Adopted from Chang et al., (2018) in a “Learning Motivation”

subscale. The score for each criterion on the Likert scale: strongly agree (4), agree (3), disagree (2), and strongly disagree (1). Nunan & Bailey (2009); Wongdaeng & Hajihama (2018) claim that surveys are a common elicitation tool used in social inquiry, particularly in the field of education, because they may be used to learn about the attitudes, circumstances, and opinions of respondents at a specific period. The correlation data between student's project result and learning motivation in ELT classes were analyzed using SPSS statistical software package through Pearson correlation. And to determine the accuracy level of the correlation final result between the two variables, researchers will use the criteria below.

Table 2. Criteria of Pearson Correlation

<b>r Value</b>	<b>Interpretation</b>
0.00-0.199	Excellent
0.20-0.399	Good
0.40-0.599	Medium
0.60-0.799	Low
0.80-1.000	Very low

Source: Miftahuddin et al., (2021)

### ***Data Analysis Techniques***

The data were collecting through correlating questionnaire and students' mark of the project. The questionnaire, consist of a questions about students expectation and belief in learning activity. The questionnaire was distributed during analyzing process. The students' mark was obtained during researcher doing a teaching practice.

## **3. Results and Discussion**

### ***The Correlation between PBL and Learning Motivation***

This research was analyzed through Pearson correlation, which is part of parametric statistics, where this test uses ratio data. The test was carried out at a significance level ( $\alpha$  value) of 0.05. as can be seen in the following table:

Table 3. The Result of Correlation between PBL and Learning Motivation

		<b>PBL Teaching Method</b>	<b>Student's Motivation in ELT Classes</b>
PBL Teaching Method	Pearson Correlation	1	.430**
	Sig. (2-tailed)		.000
	N	67	67
Student's Motivation in ELT Classes	Pearson Correlation	.430**	1
	Sig. (2-tailed)	.000	
	N	67	67

\*\* . Correlation is significant at the 0.05 level (2-tailed).

In reference on table 2, information is obtained that the correlation between PBL Teaching Methods and Student Motivation in English Classes obtained a significance value of 0.000, the value is  $< 0.05$ , then  $H_0$  is rejected and  $H_1$  is accepted, which means that there is a correlation between PBL Teaching Methods and Student Motivation in ELT Classes. The correlation coefficient number is 0.430.

- Hypothesis:

$H_0$  = There is no correlation between independent variable and dependent variable

$H_1$  = There is a correlation between independent variable and dependent variable

- Decision-making basis:

1. If the value of Sig. (2-tailed)  $< 0.05$ ,  $H_0$  rejected and  $H_1$  accepted

2. If the value of Sig. (2-tailed)  $> 0.05$ ,  $H_0$  accepted and  $H_1$  rejected

The level of closeness of the correlation between the PBL Teaching Method variable and Student Motivation in English Class is 0.430 or is included in the medium criteria (In reference on Table 2). The correlation coefficient value is 0.430, where the value is positive, which means that the relationship between the two variables is in the same direction. Thus, it can be concluded that the higher the PBL Teaching Method applied, the higher the motivation of the students in ELT class.

### ***Project Discussion***

Students in SMA Panjura works in group to do the tasks under the material Offer & Suggestion. Previously, researchers who acted as teachers in the class explained the material while inviting students to discuss and give examples according to daily life. The goal is to invite students to think critically and foster students' self-efficacy according to the skills needed in the 21st century now. As well as modeling so that students can also play an active role when discussing with their groups as the shown below in Figure 1.



Figure 1. Class Activity

Although sometimes group work feels heavy for some parties, with good supervision and direction from a teacher, students will be able to keep up with other friends in the group. Because, in the application of PBL, teachers, and students have the same responsibility, its achieving learning goals. After finishing doing the project of arranging sentences, the teacher instructs the students to make a conversation in groups according to the sentence they have arranged. Students are also allowed to develop their way of practicing the conversation in front of the class. The student's created project is shown on Figure 2.

*Group 3*

**A. Arrange The Sentence Below!**

1. When - house - you - visit - at - Bandung - can - you - stay - my  
= **When you visit Bandung you can stay at my house**
2. You - look - sit - You - down - here - should - for - a while - pale  
= **You look pale You should sit down here for a while**
3. I - think - You I can't - handwriting - read - your - neatly - should - write - it  
= **I think you should write it neatly I can't read your handwriting**
4. If - can - your - mother - house - today - doesn't - have - me - and - lunch - you - cook - go - to - my - with  
= **If your mother doesn't cook today you can go to my house and have a lunch with me**
5. There - must - computer - be - my - laptop - You - a - borrow - problem - can - with - your  
= **There must be a problem with your computer You can borrow my laptop**

**B. Make a Short Conversation Including The Correct Sentences That You Have Arranged!**

1. **A: Hi Ji Do you know a good place to visit in Bandung?**  
**J: Exactly. When do you want to visit Bandung?**  
**A: Umm, maybe next week I will visit Bandung**  
**J: When you visit Bandung you can stay at my house!**
2. **F: Morning M! What happened with you?**  
**M: Morning F! I'm good. Why?**  
**R: You look pale, M. You should sit down here for a while**

Figure 2. Student's Created Project

Adding variations while delivering the conversation will add value, such as adding background of music, embellishing the conversation, and using costumes will be additional aspects of the teacher in giving grades. The implementation of Project-Based Learning in learning activities may not have been completely successful. Yet the teacher always tried to involve the students in every good change, especially to instill good character inside students' souls. Project-Based learning appears to be an exceptional teaching media that can be accepted by students. In line with Wongdaeng & Hajihama (2018), PBL teaching method could improve student's learning motivation and self-interest while doing the assigned project. Ayu & Yuliansyah (2021) also agreed that PBL was an impactful method to apply, either to foster students and teachers of using technology in the pandemic era or influence students' attitudes. This model of teaching has been proven to help students in learning English by building up their own projects by choosing the content, solving the problem in group discussions, and developing their critical thinking. The process of doing the project will suit them to find their interest and ability. By participating actively, all the students will master the skill of the 21st century.

Nevertheless, this method is assumed as a complicated method for some learners since it takes many processes. While observing students' attitudes at Panjura High School, with the implementation of PBL they also need materials that are completing their needs. "It's also important that the projects are achievable"

(Thomas, 2000; Wongdaeng & Hajihama, 2018). They may be able to create and discuss the materials they suit themselves but would take a process. Because, English is a second language that learners rarely used in their daily lives. By involving students directly in this teaching and learning process, they will easily process the material being taught.

#### **4. Conclusion**

The result of the correlation between Project-Based Learning showed medium positive value. Then, teachers are expected to implement this teaching model in the class, especially in English course. Related to this, students in the 21st era are different from students in the past, where schools are considered to be places to gain knowledge. But at this time, students can easily get knowledge outside the class because the times have allowed them to operate technology through their hand (mobile phone). And now the function of the school is to support and complement the needs of students. Therefore, by flipping the teaching mode from teacher-centered learning to student-centered learning, it can be an alternative to support changes in students. Because the most important thing in learning is a change in students. Where these changes can be provisions that encourage them to achieve what they want. Thus, it is not only about how far the material has been achieved according to the target and mastered by students. However, it is about what they got to implement in their entire life as the learning outcomes.

Through the PBL method, the teacher indirectly encourages students to be independent by determining their own content and learning materials. So, they can adapt to their needs and ability. PBL may also turn the class on and engage students in learning participation. Because the comfortable and joyful environment in the classroom grew from the teacher. Supported by a pleasant environment and appropriate teaching methods, there will be meaningful learning that provides students stimulus that learning is fun and helps them achieve their goals. In this research, regression coefficient is not used due to research limitations. Researchers hope that this paper can be a reference for further research on the similar topic and explore comprehensively about PBL using other techniques.

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