

The Impact of Project-Based Instruction on Students' Engagement and Speaking Skills

Dampak Pembelajaran Berbasis Proyek tentang Keterlibatan dan Keterampilan Berbicara Siswa

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ABSTRAK

Tulisan ini bertujuan untuk menyajikan hasil studi tentang Dampak Pembelajaran Berbasis Proyek (PjBL) pada keterampilan berbicara siswa dan bagaimana kegiatan PjBL meningkatkan proses belajar siswa. Siswa kelas VII dari sekolah menengah pertama di Bali-Indonesia dilibatkan untuk bergabung dengan kelas intervensi selama 10 minggu. Penelitian ini menggunakan desain metode campuran yang tertanam dimana data kuantitatif dikumpulkan melalui tes berbicara, dan data kualitatif dikumpulkan melalui wawancara, checklist observasi, dan tes kuesioner terbuka. Paired samples t-test diadministrasikan dalam menganalisis data kuantitatif, sedangkan data kualitatif dianalisis secara deskriptif menggunakan model aliran Miles dan Huberman (1994). Analisis menunjukkan pengaruh yang signifikan terhadap keterampilan berbicara siswa. Peningkatan belajar siswa juga diamati dalam hal antusiasme, kepercayaan diri, kreativitas, kemampuan belajar secara mandiri dan kolaboratif. Penelitian ini mendukung implementasi PjBL yang meningkatkan keterampilan berbicara dan keterlibatan siswa dalam proses belajar.

Kata Kunci: Pembelajaran Berbasis Proyek, Bahasa Inggris sebagai bahasa asing, keterampilan berbicara, proses belajar mengajar

ABSTRACT

This paper aims to present the result of a study on the effect of Project-Based Learning (PjBL) on students' speaking skills and how the activities enhance students' learning process. Grade VII students from a junior high school in Bali-Indonesia were invited to join 10 weeks of the intervention class. This study employed an embedded

mixed-method design in which quantitative data were collected through speaking test, and the qualitative data were collected through interview, observation checklist, and open-ended questionnaire test. Paired samples t-test was administered in analyzing the quantitative data, while the qualitative data were analyzed descriptively using Miles and Huberman's (1994) flow model. The analysis shows a significant effect on students' speaking skills. Students' learning enhancement was also observed in term of critical thinking skill, creativity, communicative, and collaborative learning ability. This study supports the implementation of PjBL which enhances students' speaking skills and learning process.

Keywords: Project-Based Learning, English as foreign language, speaking skills, teaching and learning process

INTRODUCTION

Speaking is the basic of the communication especially in foreign language teaching and learning. In order to be able to communicate in English properly, the students should master speaking skill as one of the most important skills called productive skills (Darcy, Ewert and Lidster, 2001; Derwing, Munro and Wiebe, 1998; Morley, 1991). In almost any setting in daily life, speaking is also known as the most frequently used language skill. People are considered as a master in a language based on their speaking ability on that language. EFL learners' mastery in English is often evaluated based on their English speaking skills (Febriyanti, 2011; Richards, 1986).

Teachers as the educators should prepare the students to be able to speak in English not only inside the

classroom but also in the real-life context (Bahadorfar & Omidvar, 2014). As for the reason is because someone's speaking ability would decide his/her first impression. A person who has an ability to speak fluently and comprehensively in English would have a better first impression than someone who has lack ability in Speaking. Therefore, it is important for the teachers to modify the class into an authentic learning situation (Nicaise, Gibney & Crane, 2000).

In an authentic learning class, students' learning experiences should reflect real world issues, problems, and applications of the solutions. The learning experiences should contain the complexities and ambiguities of the students' daily life. In order to make the students active and fully hands-on

in the class, the teachers should conduct a teaching method that allows the students to do higher order performances such as solving problems, doing an active communication, working in collaboration, and developing a creative solution towards the problem (Churchill, 2003; Haury & Rillero, 1994).

An authentic learning activities could manage the students to make meaning on their own learning. In the other hand, the learning experiences that do not allow the authentic learning activities in the class would easily be forgotten by the students (Lombardi, 2007; Schmidt-Jones, 2017; Simpson, 2016). When the students learn by doing, it means they have the value or meaning beyond success in school. They have the confidence and knowledge from the authenticity of the learning that they have experienced in the class (Nicaise, Gibney and Crane, 2000).

One of the method that supports an authentic learning activities inside the classroom is Project-Based Learning. Project-Based Learning (PjBL) is an instructional method in which students learn inside projects (Barrows & Tamblyn, 1980). The learning experiences in PjBL

should aim to instil authenticity into every projects in order to support students to develop their problem-solving skills and making creative products in the end of the class (Alan & Stoller, 2005; Bell, 2010). In PjBL, students also engaged in self-directed learning situation where they learn to connect their own prior knowledge with the new knowledge that they learn inside the project itself. Moreover, to solve the problems the students are encourage to effectively collaborate with each other (Webb & Palincsar, 1996).

Teachers have a specific role in PjBL activities. Teachers are expected to guide and support students on the teaching and learning process (Erdem & Demirel, 2002). The focus of the learning is directed to the students as an active participant not the teacher. The students are the one who actively involves in doing the project, analyses the problem, thinks creatively on the solution, and communicates their idea to others. Instead of instructing the students, the teachers should be the one who giving guidance and support on students' activities.

To support the practice of an active and authentic learning activity, Indonesian Government has established a regulation of National

Education Standard which is stated in *Peraturan Pemerintah No. 19, Tahun 2005, Pasal 19, Ayat 1*. It is stated that students should have an interactive, inspiring, fun, and challenging experience in learning. The learning is also expected to support students to develop their talents, interests, physical, and psychology. It is important to consider students' attachment on the learning activities as a major factor that could enhance students' final learning outcome.

Unfortunately, based on data from the previous researches that have been done in Indonesia, it was found that students still experience an unmotivated activity in the classroom which cause the lack of their enthusiasm towards the learning itself (Azra, 2002; Bjork, 2005; Hadi, 2007). Putri (2017) on her research stated that an uninteresting sequence of activities that was considered as part of teacher-centred learning created a passive learning environment. The students were disconnected and unengaged with the learning itself. It caused the students to fail in achieving their learning indicator. Moreover, Nurjannah, Husniyah & Harjanto (2017) in their research also found that students who followed Teacher-Centered Learning approach had lower

score than those who followed the Students-Centered Learning. They stated that Students-Centered Learning approach was giving a better result than Teacher-Centered Learning approach because in Teacher-Centered Learning approach the students had less time to learn on their own, which means they did not have sufficient right to control their own learning in order to obtain more information.

In this study, a preliminary research was conducted in order to identify the initial condition of the subject. It was found that the students were taught using Teacher-Centred Learning approach. Based on the interview towards the teacher, it was defined that the teacher still implemented some technique such as Explicit Instructions, Grammar Translation, etc. Moreover, based on the open and close-ended questionnaire test that were conducted on the students, it was found that the practice of the teacher-centred learning caused them to have lack of enthusiasm and connection towards the learning itself. It was also proven by the result of students' English speaking pre-test which showed that 78% of the students were failed on passing the minimum limit of the test score (point 75).

Based on those results, it was important for the researcher to implement Project-Based Learning as an interactive learning method that could bring a tremendous benefit for the students in improving their English Speaking Skills and attachment towards learning itself. There are numbers of studies that show the advantages of Project-Based Learning implementation. Firstly, Ali, & El-Henawy (2015) in their research declared PjBL brought highly positive beliefs on students towards their own learning. They also stated that there was a great development in students' oral communication skills. Secondly, Essien (2018) also found a positive effect of PjBL towards students' English Language ability on her research. PjBL has also improved the students' critical thinking ability, independent study skill, personal and social responsibility, and strong communication skills. Thirdly, Hoose (2017) also found out that by using PjBL to teach in the classroom, the students became more enthusiast in working on long-term project that allowed them to experience an authentic situation. This study also showed that PjBL could help students to enhance their skills in interviewing, summarizing and synthesizing

information, and giving written and oral presentations.

The results of those studies represent the advantages of using PjBL in the teaching and learning process. Unfortunately, there was still lack of research that studied about the implementation of PjBL and its effect on students' Speaking skills and engagement on learning in term of Indonesian EFL Learner context. Therefore, this study purposed at answering these questions, (1) Is there any significant effect of students' Speaking Skills after being taught using PjBL?, (2)How does PjBL enhance students' learning process?

METHODOLOGY

An embedded mixed-method design was administered in this study. It focuses in collecting both of the quantitative and qualitative data during one phase study. Those data were proposed to answer two different questions as mentioned in the previous chapter. The participants of this study were forty-four students of seventh grade of secondary public school in Tabanan, Bali. This study applied quantitative test to analyse the effect of Project-Based Learning on students' Speaking skills. The qualitative test was administered through speaking

pre-test and post-test in order to analyse whether or not there is a significant effect of PjBL on students' Speaking skills. Moreover, observation checklist, open-ended questionnaire test, and field

note were used to collect the data qualitatively. It was administered to collect the data before, during, and after the implementation of PjBL. This qualitative data was aimed to identify the influence of PjBL in students' learning process. The quantitative data were analysed using paired sample t-test, while the quantitative data were analysed using Miles and Huberman's (1994) flow model.

FINDINGS AND DISCUSSION

There were two different research questions that are proposed in this study. The first research question was administered in analysing the effect of PjBL on students' Speaking skills. The speaking skill was divided into monologue and dialogue which the findings are presented as below.

1. *Is There Any Significant Effect of Students' Speaking Skills After Being Taught Using PjBL?*

This question was administered in order to find out whether or not there is a significant effect of PjBL towards Speaking skill in term of

monologue and dialogue speaking skills. The findings of quantitative test

Monologue Test	Paired Differences					t	df	Sig. (2- tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pre_test – Post_test	- 12.500	5.902	1.043	28	- 10.372	- 11.980	31	.000

are presented as below:

Table 1.
Result of Monologue Paired-sample t-test

This result of paired-sample t-test answers whether or not there is a significant effect of PjBL on students' monologue skill. Paired-sample t-test was administered in both pre-test and post-test. Table 1 shows $t = -11.980$ and the Sig. (2-tailed) value is .000 which is lower than 0.05 ($.000 < 0.05$). It proves that there was a significant effect on the participants' monologue skill after being intervened by PjBL in their English class.

Table 2.
Result of Dialogue Paired-sample t-test

Dialogue Test	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pre_test – Post_test	-4.639	1.988	.331	-5.311	-3.966	-14.002	35	.000

The result on the Table 2 shows the outcomes of the paired-sample t-test of students' dialogue speaking test. Both of the pre-test and post-test were compared in order to identify whether or not there is a

significant effect of PjBL on students' dialogue speaking achievement. It shows that the value of 2-tailed was less than 0.05 (.000) which means that there was a significant effect of PjBL on students' dialogue speaking skills. Therefore, it can be concluded that the implementation of PjBL successfully enhances EFL students' speaking skill. Similar result also found by Radjab (2013) who found out there was a positive improvement on students' speaking skills after being taught using PjBL. Therefore, there are some factors that influence students' speaking achievement. Those are; real-life issue in PjBL that made students easily connect the learning process with their prior knowledge, doing a collaborative work, and they were also given chance to communicate their idea to others. Putri (2017) revealed on her research that speaking as one of the language productive skills was also able to enhance through PjBL instruction.

2. *How does PjBL enhance students' learning process?*

The qualitative data were administered in order to answer the second question. Observation checklist, open-ended questionnaire, and field note were used in order to collect the data. The observation

checklist was used to identify students' learning activity. It was adapted from the theory of PjBL characteristics by Thomas (2000) and active learning characteristics by Brown (2008). Meanwhile, the open-ended questionnaire was used to determine students' responds towards PjBL activities in the end of every intervention class. Moreover, the field note was used to record every significant activity that show a special indication in the learning activities, such as students' enthusiasm in asking or answering questions, etc.

The findings revealed that PjBL could promote students' learning quality in term of critical thinking skill, creativity, communicative, and collaborative learning ability. Based on the result of the field note that was taken on the intervention class, it was proven that students showed an active respond towards project. They worked on ideas in order to produce the project. This particular result was also supported by the result of open-ended questionnaire which represented as quotation and picture below:

“Saya sangat semangat saat diberikan proyek ini. Saya merasa tertantang untuk mencari cara yang terbaik untuk menyelesaikan proyek ini” (S26/F)

[I felt so excited when this project was given to me. I felt that I was being challenge to search on the best way to complete the project]



Picture 1. The students focused on making concept of the project

This picture represents the students' enthusiasm in working on the concept of their project. They developed their critical thinking skill by searching on the best concept they could use in their project. This finding was supported by the previous research by Rochmahwati (2015) who also found similar result on project-based learning study. Her research discovered that PjBL was able to facilitate the students to build their critical thinking skills.

This study also found out that PjBL activities could enhance students' learning quality in term of creativity. The students were able to expand their creativity while working on the project. Based on the field note which was taken during the learning process, the students were seemed to enjoy the activities. When the students

enjoyed the learning, they would tend to think in creative ways. They also developed new ideas through a creative process. The quotation and picture below represent students' creative way of thinking:

"Saya bisa mengembangkan kemampuan saya dalam berfikir kreatif dalam mengerjakan proyek-proyek ini. Sangat seru dan menyenangkan! Saya sangat menikmatinya!"(S01/M)

[I could develop my creative thinking skill while doing these projects. It was so fun! I really enjoyed it!"]



Picture 2. The students enjoyed working on their projects in creative ways.

As can be seen on this picture, the students enjoyed working on their projects. Project-Based learning instruction provides students a sequence of real life activities to practice on. They expand their knowledge on the learning in creative ways. The similar result of study was also found by Mihardi, Harahap & Sani (2013) on the effect of project based learning model with KWL worksheet on student creative thinking

process in physics problems. It was proven that students' creative thinking skill increased through PjBL. It was also indicated that students became more active in the learning process.

Students' communicative learning ability was also enhanced through PjBL. The students demanded to do a presentation where they could develop their communicative skills by sharing their ideas to others. In PjBL, students are encouraged to do an effective communication. Instead of leading students to a pure memorization on speaking activity, the project instructions provide speaking activities where meaningful communication takes place. It can be seen on this quotation and picture:

"Senang sekali bisa berbagi ide dengan teman-teman di kelas. Saya jadi bisa mempresentasikan ide saya dengan baik, walaupun banyak salah tapi setidaknya saya berhasil mencoba!" (S19/M)

[I am so happy to be able to share my ideas to my classmates. I could present my idea well. Even though I had lots of mistakes in presenting my idea, at least I tried!]



Picture 3. The student presented their work in front of the classroom

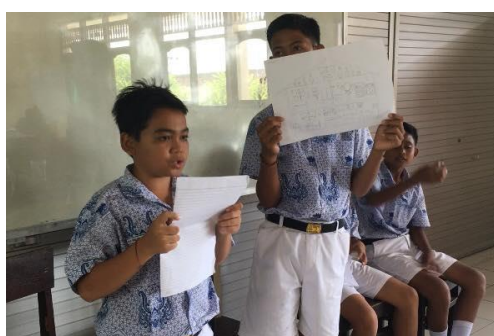
The picture above shows student's activity in presenting their work in front of the classroom. Marisah and Robiasih (2017) on their research of the implementation of PjBL revealed that it could integrate students' language skill and elevate students' social and communication skills. PjBL increases students' communicative skills by giving more chance to speak.

The fourth findings on how PjBL enhanced students learning process is in term of collaborative learning skills. The students were encouraged to do activities in form of group work. Inside a group work form, the students could share their idea and also help each other by giving suggestions. They could learn on how to inspire and build each other's knowledge. It could be seen from the quotation and picture below:

"Saya benar-benar menikmati proses belajar dalam group karena beberapa hal. Salah satunya adalah karena saya

dan teman-teman bisa belajar dari satu sama lain dan saling memberikan koreksi kepada kesalahan masing-masing.” (S37-M)

[I really enjoyed learning in a group because of some reasons. One of them is because my friends and I were able to learn and give correction on each other's mistakes.]



Picture 4. The students worked in form of group to explain their project

The picture above shows students activity in doing a collaborative work. They helped each other in presenting their work. Chen, Hernandez, and Dong (2015) in their research revealed that there was a sufficient effect on students collaborative learning skills through PjBL. It was stated that students could encourage each other throughout the learning activities by working in team.

CONCLUSION

This study presents empirical evidence on the impact of PjBL on students' engagement and speaking

skills. The findings show a significant effect of PjBL on students speaking skills. Moreover, PjBL also enhanced students learning quality in term of critical thinking skill, creativity, communicative, and collaborative learning ability.

This study also provides some some advices on teaching-learning activities in order to consider PjBL as one of the interactive method to be implemented. Teachers should take PjBL into account if it comes to the effective learning method in improving students' speaking skills and engagement.

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