The Effect of Project-Based Learning Activities on Students' Learning Engagement and Achievement in English Classroom at Junior High School

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Abstract

The current research focused on examining the implementation of project-based learning activities to improve students' learning engagement and learning achievement at Junior High School. Mix-Method approach was adapted by employing sequential explanatory design. There were 62 of eighth-grade students were involved as research samples. They were selected by using cluster random sampling which were divided into control and experimental group. The data were collected from test, questionnaire survey, and interview. The instruments used were speaking and writing rubric assessment, close-ended questionnaire, and interview guide. The quantitative data were analyzed through inferential statistics which was MANOVA analysis meanwhile qualitative data were by adapting Qualitative Data Analysis. The findings revealed that the project-based learning had a significant effect on students' learning engagement and achievement as well as the implementation was perceived positively by the students.

Keywords: Achievement; Engagement; Perception; Project-based learning

Introduction

A student-centered approach significantly strengthens the role of education in forming an independent generation with a creative and critical mindset. Adinda and Mohib (2020) state that students not passively receive information given by the teachers but they are involved actively to explore knowledge, solve problems, and develop skills. It provides students a space to learn based on their own rhythm and style which leads them to study in a greater depth (Safaruddin et al., 2020). It is added that students-centered learning assists students to have more responsibility in strengthening their self-confidence and fostering intrinsic motivation as a way to face reality challenges and contribute positively in

3393

society(Islam et al., 2022).

As a respond to the emergence of students-centered learning, Indonesian government publish a new curriculum called Merdeka curriculum. It is an educational framework designed as a more adaptive and flexible curriculum helping students in navigating unpredictable environment (Mubarok et al., 2023). By providing flexibility in learning, Merdeka curriculum allows students to study based on their needs, interests, and abilities (Astawa et al., 2017; Audina et al., 2023; Hamdi et al., 2022). Teachers are free to adapt teaching methods relevant to students' conditions to conduct a learning process allowing students to manage and explore the learning process actively (Barlian et al., 2022;Cahyani et al., 2022; Dewi et al., 2023; Padmadewi et al., 2023). It indicates that teachers are offered wide opportunity in adopting students-centered approach into their classrooms through the implementation of Merdeka curriculum with an adjustment on students' needs, interests, and targeted learning objectives (Khomsah et al., 2023).

The success of students-centered learning is obtained from students' learning engagement in which it is regarded as an important aspect to determine a learning process quality. Learning engagement is perceived as students' active involvement in learning process fostered by students' motivation and interest (Simbolon, 2021; Zen & Ariani, 2022). A student with high learning engagement is predicted to have better critical thinking, creativity, and innovation in showing their ideas during the learning process classroom (Artini & Padmadewi, 2021; Budiarta et al., 2023; Emawati et al., 2024). Therefore, the successful implementation of students-centered learning approach in Merdeka curriculum is determined by the students' engagement itself.

Despite of its objective in emphasizing students-centered approach to improve students' ability, there is still an issue related to the implementation of Merdeka curriculum. An issue is commonly faced by English teachers related to the adaptation of learning method (Wilson & Nurkhamidah, 2023). English teachers' confusion in determining the strategies in implementing the learning method relevant to the students' characteristics and needs becoming the biggest fear of failing in conducting students' centered approach. This issue occurs in the English classrooms at Junior High School. The English teachers mention that they dominantly adopt Project-Based Learning (PjBL) in teaching English because it provides them a chance to obtain students' learning process and product in a more efficient way. The teachers have closely followed the syntax of PjBL comprising; planning, implementing, and reporting but the activities are not structured and far from the students' needs. The English teachers state that the activities are designed based on the learning objectives with the supports from internet sources. There is no a certain evaluation that is conducted to find out students' needs and characteristics becoming the foundation in implementing PjBL itself. This issue is perceived as a serious problem that is predicted bringing an effect on students' learning achievement problem that affects students' learning achievement (Rahimah & Widiastuty, 2023).

As an innovative learning method, PjBL is modified as a learning paradigm which is more dynamic and participatory (Abidin, 2020). It means that the teachers are suggested to innovatively improve the quality of its implementation by concerning on students' needs and characteristics (Mubarok et al., 2023). This issue attracts many researchers to develop instruments or activities based on PjBL to optimize the its implementation and achieve the learning objectives as demanded in Merdeka curriculum. Darmawan et al., (2024) develop project-based learning activities to implement Merdeka curriculum for junior high school students. The activities are expected to assist teachers in improving students' learning achievement by conducting project-based learning relevant to the students' needs and condition in learning English. The activities also provide authentic learning environment relevant to the demand of Merdeka curriculum. These activities modify the implementation of project-based learning based on the paradigm in Merdeka curriculum.

Furthermore, obtaining students' learning achievement is required to find out the efficiency of developed PjBL activities. Learning achievement is perceived as an inseparable component of educational assessment in which it reflects how good the learning process is conducted (Ananda, 2019; Charbi & Hartoto, 2017; Padmadewi et al., 2021; Wahyuni, 2020). It is argued that learning achievement is used as an indicator to measure how far is learning objective achieved by the students (Silalahi et al., 2022). Mailok et al., (2016) even states that a learning achievement is intercorrelated with learning engagement showing the quality of learning process. It is highlighted the pivotal role of learning engagement in shaping students' learning achievement where the students who are highly engaged tend to have well academically achievement (Pang & Veloo, 2024). Therefore, the current study intends to fill the research gap in extending further investigation on the current issue related to an optimized implementation of PjBL at Junior High School by implementing the developed PjBL activities and investigating its effect on students' learning engagement and achievement in English classrooms. There are three research questions highlighted in this study, such as; 1) is there a significant effect of PjBL activities on students' learning engagement? 2) is there a significant effect of PjBL activities on students' learning achievement? 3) is there a simultaneous effect of PjBL on students' learning engagement and learning achievement?

Method

An Explanatory Mixed Method Design was employed in this study by adapting Sequential Explanatory strategy focusing on the effect of PjBL activities on students' learning engagement and learning achievement in English classrooms at Junior High School. There were 62 of eighth-grade students selected as a research sample. They were selected by using cluster sampling technique which were divided into control group and experimental group. The data collection techniques used in this

study, namely; test (pre-test and post-test), questionnaire survey, and interview. The pre-test was conducted to obtain the students' learning engagement and learning achievement before the implementation of PjBL activities.

The pre-test was conducted through speaking and writing test. The post-test was conducted after the implementation of PjBL activities in the experimental group meanwhile conventional learning with scientific approach was conducted in the control group. The post-test was conducted through the similar test; speaking and writing test. The instruments used during both of test sessions were speaking rubric assessment and writing rubric assessment. Meanwhile the students' learning engagement was obtained by using close-ended questionnaire. Interview guide was used as an instrument to collect students' perceptions on the implementation of PjBL activities.

Those instruments were checked for its validity and reliability. Expert judgements were conducted to obtain the validity of the instruments in which it was found that the instruments had categorized into "very high" for its validity with the average 4.08. Meanwhile, the reliability from Cronbach Alpha was .917 which was higher than .8. It indicated that the instruments were reliable. The collected data were analyzed by using inferential statistical analysis and Qualitative Data Analysis. One-Way MANOVA analysis with the assistance of SPSS 29 was conducted to analysis the quantitative data meanwhile QDA was conducted to analyze the qualitative data.

Results

The Effect of PjBL Activities on Students' Learning Engagement and Learning Achievement at Junior High School

The analysis showed that the pre-test data covering students' learning engagement and learning achievement were normally distributed with the significant value of chi_sq .994 which was higher than .05 and Mahalanobis Distance <.001. The data were also homogenous with the *p-value* was higher than .05 and the Box's M value which was 3.809.   There was a collinearity found among the data indicated by the *p-value* .15 < .05. The tolerance value was .995 > .05 with VIF 1.005 which was not exceeding than 10.00 as an indication that there was no multicollinearity among the variables. These findings revealed that the data were eligible for descriptive inferential analysis. The result of descriptive statistic analysis was presented in table 1.

Table 1. The Descriptive Statistic Result on Pre-Test Data

		Means	Maximum	Minimum	Median
Students' Learning Engagement	Control Group	67.39	71.00	63.00	68.00
	Experimental	68.03	71.00	63.00	68.00

	Group				
Students' Learning Achievement	Control Group	50.55	78.00	30.00	51.00
	Experimental Group	55.45	78.00	33.00	50.15

Based on Table 1, it was found that there was a difference between the students' learning engagement and learning achievement between control group and experimental group. The difference was obtained from the different mean score of each group. It was found that the mean score of students in experimental group was higher than the students in control group. It revealed with the scores; 68.03 > 67.39 for the learning engagement, and 55.45 > 50.55 for the learning achievement. However, this result was furtherly checked through MANOVA analysis to find out whether there was a significant difference or not. The result was presented in Table 2.

Table 2. The Multivariate Analysis Result of Pre-Test Data

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.999	34849.998[b]	2.000	59.000	<.001
	Wilks' Lambda	.001	34849.998[b]	2.000	59.000	<.001
	Hotelling's Trace	1181.356	34849.998[b]	2.000	59.000	<.001
	Roy's Largest Root	1181.356	34849.998[b]	2.000	59.000	<.001
Students Group	Pillai's Trace	.051	1.585[b]	2.000	59.000	.214
	Wilks' Lambda	.949	1.585[b]	2.000	59.000	.214
	Hotelling's Trace	.054	1.585[b]	2.000	59.000	.214
	Roy's Largest Root	.054	1.585[b]	2.000	59.000	.214
a. Design: Intercept + Students Group						
b. Exact statistic						

Table 2 showed that there was no simultaneous effect contributed on students' learning engagement and learning achievement given from the conventional learning. This result also indicated that there was no significant difference between students' learning engagement and learning achievement gained from the students in control group and

experimental group. This result was obtained from the significant value. It revealed that the significant value was .214. It was higher than .05 indicating that there was no difference and simultaneous effect. This result was supported by the result of test between-subjects effects presented in Table 3.

Table 3. The Result of Tests Between-Subjects Effects

Tests of Between-Subjects Effects						
Source	Dependent Variable		Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	Students' Engagement	Learning	6.452[a]	1	6.452	1.572	.215
	Students' Achievement	Learning	372.645[b]	1	372.645	1.793	.186
Intercept	Students' Engagement	Learning	284245.226	1	284245.226	69237.313	<.001
	Students' Achievement	Learning	174158.000	1	174158.000	838.147	<.001
Students Group	Students' Engagement	Learning	6.452	1	6.452	1.572	.215
	Students' Achievement	Learning	372.645	1	372.645	1.793	. 186
Error	Students' Engagement	Learning	246.323	60	4.105		
	Students' Achievement	Learning	12467.355	60	207.789		
Total	Students' Engagement	Learning	284498.000	62			
	Students' Achievement	Learning	186998.000	62			
Corrected Total	Students' Engagement	Learning	252.774	61			
	Students' Achievement	Learning	12840.000	61			
a. R Squared = .026 (Adjusted R Squared = .009)							
b. R Squared = .029 (Adjusted R Squared = .013)							

Based on Table 3, it showed the effect which was contributed from conventional learning to the students' learning engagement and learning achievement in both groups. It was revealed that there was no effect contributed by conventional learning on students' learning engagement. It was proved by the significant value of .215 which was higher than .05. In addition, it was also found that there was no significant effect contributed by conventional learning on students' learning achievement. It was obtained from the significant value .186 > .05. This analysis result provided an information that there was no

significant difference between students' learning engagement and learning achievement during the pre-test.

The post-test was conducted to find out whether the implementation of project-based learning activities contributed an effect to students' learning engagement and learning achievement. The experimental group was given a treatment in which they were taught by using project-based learning with the involvement of worksheet module consisting of project-based learning activities. Meanwhile, the control group was taught by using conventional learning. There were three topics taught for both of group, such as; simple past, present continuous, and recount text. Then, speaking assessment and writing assessment were conducted after the treatment given.

The perquisite test was conducted to find out the eligibility of the data obtained in the post-test covering students' learning engagement and learning achievement. The normality test showed that the data were normally distributed with chi-square value .963 and sig. (2-tailed) was <.001. The homogeneity test revealed that the data were homogenous with the significance of .210 > .05. There wclas a linear regression among the variables with the significant value <.001<.05. Meanwhile, there was no multicollinearity indicated by tolerance value .889 > .05 and VIF value 1.125 which was lower than 10.00. These results revealed that the data were valid and reliable to be continued analyzed in this study.

The multivariate analysis through One-Way MANOVA revealed the simultaneous effect occurred on students' learning engagement and learning achievement from the implementation of PjBL activities in English classrooms at Junior High School. The result was presented in Table 4.

Table 4. The Multivariate Test Analysis Result of Post-Test Data

Multivariate Tests[a]						
Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.999	22624.101[b]	2.000	59.000	<.001
	Wilks' Lambda	.001	22624.101[b]	2.000	59.000	<.001
	Hotelling's Trace	766.919	22624.101[b]	2.000	59.000	<.001
	Roy's Largest Root	766.919	22624.101[b]	2.000	59.000	<.001
Learning_Model	Pillai's Trace	.506	30.194[b]	2.000	59.000	<.001
	Wilks' Lambda	.494	30.194[b]	2.000	59.000	<.001
	Hotelling's Trace	1.024	30.194[b]	2.000	59.000	<.001

Roy's Largest Root	1.024	30.194[b]	2.000	59.000	<.001

a. Design: Intercept + Learning_Model

b. Exact statistic

Based on Table 4, it was found that the significant value obtained from Wilks' Lambda which was in line with the learning model indicated the value of <.001. It showed that *p-value* was lower than .05. It was interpreted that there was a significant simultaneous effect contributed by project-based learning activities on students' learning engagement and learning achievement. This finding was furtherly obtained from the test between subject effects result as presented in Table 5.

Table 5. The Result of Test Between Subject Effects

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	Learning Engagement	198.726[a]	1	198.726	24.248	<.001
	Learning Achievement	1466.165[b]	1	1466.165	37.255	<.001
Intercept	Learning Engagement	298364.532	1	298364.532	36405.014	<.001
	Learning Achievement	380412.778	1	380412.778	9666.160	<.001
Learning_Model	Learning Engagement	198.726	1	198.726	24.248	<.001
	Learning Achievement	1466.165	1	1466.165	37.255	<.001
Error	Learning Engagement	491.742	60	8.196		
	Learning Achievement	2361.306	60	39.355		
Total	Learning Engagement	299055.000	62			
	Learning Achievement	384240.250	62			
Corrected Total	Learning Engagement	690.468	61			
	Learning Achievement	3827.472	61			

a. R Squared = .288 (Adjusted R Squared = .276)

b. R Squared = .383 (Adjusted R Squared = .373)

The data presented in Table 5 indicated if there was a significant influence given by independent variable to each dependent variable or not. The result showed that there was a significant influence contributed by project-based learning activities on students learning engagement indicated by the significant value of <.100 which was lower than .05. In addition, the result also presented that there was a significant influence contributed to students' learning achievement. These findings were strengthened by the pairwise comparisons as presented in Table 6.

Table 6. The Pairwise Comparisons Test Result

Pairwise Comparisons							
Dependent Variable	(I) Learning Model	(J) Learning Model	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
						Lower Bound	Upper Bound
Learning Engagement	Conventional learning	PBJL Activities	-3.581[*]	.727	<.001	-5.035	-2.126
	PBJL Activities	Conventional PBJL	3.581[*]	.727	<.001	2.126	5.035
Learning Achievement	Conventional Learning	PBJL Activities	-9.726[*]	1.593	<.001	-12.913	-6.538
	PBJL Activities	Conventional PBJL	9.726[*]	1.593	<.001	6.538	12.913
Based on estimated marginal means							
*. The mean difference is significant at the .05 level.							
b. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).							

Based on Table 6, there was a significant difference on students' learning engagement between students who were taught with conventional learning and the students who were taught with project learning activities that had been developed in the previous study. It was proved with the significant value of <.001 which was lower than .05. The mean difference between both groups occurred at 3.581. Meanwhile, there was a significant different on the learning achievement between students who were taught by using conventional learning and the students who were taught by using project-based learning activities. The significant value was <.001 lower than the standard value of .05. The mean difference was 9.726. These findings proved that; 1) the implementation of project-

based learning activities improved students' learning engagement, 2) the implementation of project-based learning activities significantly affected students' learning achievement, 3) there was a simultaneous effect of project-based learning activities on students' learning engagement and students' learning achievement.

The Eighth-Grade Students' Perceptions on The Implementation of Project-Based Learning Activities in English Classroom at Junior High School

The interview showed that students had positive perceptions on the implementation of project-based learning activities obtained from several indicators. Firstly, students mentioned that they felt motivated by the activities in the learning process. It was proved by the three students who became the important in the interview section. One of them stated that PjBL activities provided real-contextual learning environment that inspired them to give more effort, as follows; *"Yes, I feel very motivated during the implementation of PjBL activities because they make learning more engaging and enjoyable. And I feel excited to see the results of my efforts."* It was also found that their motivation was coming from an engaging activity such as; the visualization content, singing activities, and collaborative activities, as mentioned by student 1; *"Yes, I feel very motivated during the implementation of PjBL activities because they make learning more engaging and enjoyable. And I feel excited to see the results of my efforts."* The activities wrapped in interactive ways with good visualization perceived positively by the students with the increase of learning motivation.

Second, the students mentioned that they were attracted and interested on the project-based learning activities provided in the developed worksheet module in the previous study. The project was designed by adapting the common problem founded by students in their daily life attracted their interest, for instance; a project in making brochure. It was interested for the students since they would find many brochures in internet or public places in which it was easier for them to apply their knowledge and English. It was supported by the following statement; *"The most interesting thing during PjBL activities is the opportunity to be creative and work on something practical. And I can apply what I have learned in a real-world and the ability to create something meaningful make the learning process much more exciting."* The excitement that they felt in the learning process reflecting their learning interest.

Based on the previous findings, the third indicator obtained students' perceptions on the implementation PjBL activities from the real-world experience that they had. It was found that the activities offered students a real-world experience by bringing common problems in the society into the learning process. It helped them to improve their problem-solving skills and task-management, as mentioned by one of the students; "*Yes, I gain valuable real-world experience through PjBL activities. These experiences help me prepare for real challenges and teach me how to handle different situations effectively.*" This statement revealing that

students positively perceived the real-world experience from the activities.

Fourth, students also mentioned that they had positive perceptions on the implementation of PjBL activities because of the benefits that they achieved in the classrooms. It was found out that the students' confidence was improved through the team-work. It was supported by the following statement; "*Yes, I receive many benefits from PjBL activities. They help me improve my critical thinking, problem-solving skills, and teamwork. This experience increases my confidence because I get to present my ideas and see my progress.*" Despite the confidence improvement, the students also had benefits on their thinking skills.

In addition, students also showed positive perceptions on the implementation of PjBL activities when they felt the learning pleasuring from the activities. The students mentioned that the activities were enjoyable particularly when the students worked within the group. They were able to interact each other and discuss about the materials that they did not understand. It helped them to solve the difficulty. "*I enjoy with the project activities because it was more relax for me to work with the other students in a group. The task was also familiar for me, so I don't need to face so much difficulty during the learning process.*" It was added that the students enjoyed the learning process because the learning process was not focused on the theory but the students were able to practically implement their knowledge. As mentioned by another student; "*Yes, I truly enjoy learning through PjBL activities because they make the process more dynamic and engaging. Instead of just focusing on theories, I can apply my knowledge in practical ways*". The activities were flexible for the students which caused an enjoyable learning environment.

The positive perceptions were also given by the students considering that they felt a better project management and team work experience during the implementation of PjBL activities. It was mentioned that; *"Yes, I am able to work well in a team during PjBL activities. This teamwork helps ensure the project is completed successfully and improves our ability to work together effectively."* The statement indicated that students had better cooperation with their friends as a team work and completed their work efficiently. They were assisted with the timeline and rubric assessment provided in the designed activities leading them to have better management. The students stated that ""Yes, I can manage my project well by organizing the tasks based on the provided table in the worksheet. It helps me a lot because I just need to determine our task based on the steps given in the worksheet. We do not need to confuse about what we need to do the next. We just need to follow the flow on the table." Therefore, the students positively perceived PjBL activities to help them in managing their work and felt a better team-work experience.

Lastly, the presentation and discussion improved students' communication skills. It was supported by the statement given by the students; "Yes, it helps

improve my communication skills by encouraging discussions and presentations." It was added that; "Yes, PjBL activities have helped me significantly in improving my communication skills. They encourage me to express my thoughts clearly, present my work confidently, and interact effectively with my teammates. This has made me more comfortable in discussions and presentations." These statements showed that the students had more chance to communicate for sharing their ideas and thoughts with group members. In addition, the activities also gained positive perceptions from the students in which they argued that the PjBL activities improved students' interpersonal skills in the discussion as mentioned; "Yes, PjBL activities significantly improve my interpersonal skills. I learn how to collaborate with others, respect different opinions, and work as part of a team." By working in pair or group, the students were able to improved their communication skills to explore the ideas and it also improved their interpersonal skills.

Furthermore, the current study showed that the students perceived the implementation of project-based learning activities positively. It provided an authentic learning process assisted the students to have better learning motivation, learning interest, and felt real-world experience. The project activities were developed in the form of group work and group discussion assisted the students in having a flexible learning environment and a team-work experience as the benefit and they could enjoy the learning process. It also improved their communication skills and interpersonal skills. The students were also able to manage their work better since the schedule, guideline, and assessment rubric had been provided in the worksheet. Therefore, this finding revealed that the implementation of project-based learning contributed an impact towards the students' learning process.

Discussion

Theoretically, project-based learning was a learning model providing learning activities fostered students' active participations since it was underlined by students-centered approach (Abidin, 2020; Cahyono, 2022). The current finding supported the statement since it was revealed that there was a significant effect contributed by project-based learning activities on students' learning engagement. This finding supported the previous studies which discovered similar findings related to the contribution of project-based learning on students' learning engagement (Almulla, 2020; Dole et al., 2017). The project-based learning activities which were developed earlier allowed students to do constructive learning where they were introduced to the problem with a stimulation first, then they were allowed to do investigation within their group. It was relevant to the criteria of project-based learning proposed by Thomas (2000) who mentioned that project-based learning involving students to do constructive research to encourage students' initiative. It drove them to actively participate in working on their project (Nata & Sujana, 2021).

Mailok et al., (2016) found out that there was a significant difference on the

students' learning engagement who were taught by using project-based learning and conventional learning only. It was relevant to the current finding which also revealed that there was a significant difference on students' learning engagement within control group and experimental group. It was relevant to the statement argued by Carrabba (2018) who stated that students were provided more opportunities to be engaged in their learning process if they could manage and had a control on their works in a structural manner. Previous studies also revealed that the parameter of students' learning engagement was their engagement in managing and controlling their project during the learning process (Al-bahadli et al., 2023; Alisha et al., 2022; Randazzo et al., 2021).

There was a significant effect of project-based learning activities on students' learning achievement found during the post-test. This study relevant to the purpose of project-based learning in enhancing students' learning outcomes through collaborative learning (Syakur et al., 2019). It highlighted that the students' learning achievement was improved through the provision of authentic learning activities. The tasks were formed as a project activity familiarizing students with the use of English in their daily life which allowing them to have better improvement on their English skills. Their improvement was reflected on the writing test and speaking performance conducted as the project. It supported the study which was conducted by Putra and Marhaban (2021). It was found that providing students with authentic learning improved students' productive skills. Therefore, the implementation of project-based learning activities in the current study allowed students to have authentic assessment to optimize their learning achievement.

There was a simultaneous effect contributed by project-based learning activities on students' learning engagement and learning achievement. It supported the previous study revealing that project-based learning brought a significant impact on students' learning engagement and learning achievement (Suartama et al., 2024). This finding relevant to the statement mentioning that learning engagement and learning achievement were inseparable components in the learning process in determining classroom effectiveness (Zhou et al., 2022). It was found that students engaged to the learning process because of enjoying the project activities since they were able to work in a group. Their engagement improved them to comprehend the learning materials well and they could practically use their English to show their ideas or thought within their team. Therefore, this finding was relevant to the study showing that there was a correlation between students' learning engagement and learning achievement (Rajabalee et al., 2020).

The students' perceptions were obtained from their motivation, interest, real-world experience, benefit, pleasure, team-work, project-management, communication skill, and interpersonal skill. The students had positive perceptions on the implementation of project-based learning activities in improving their

learning engagement and achievement. Students showed that they perceived project-based learning positively influencing their learning motivation, interest, real-world experience, team work, communication skills, and English skills. It was also perceived that project-based learning activities that had been designed in the previous study helped them to manage the project better. This finding was relevant to the previous study where the students raised their perception of motivation, interest, the benefits, and enjoyable learning process during the implementation of project-based learning (Syahril et al., 2021).

The current finding also found that students had positive perceptions on the implementation of project-based learning activities in which they mentioned that it improved their interpersonal skills. It supported the previous study discovering similar finding where the students had a better interpersonal communication skills during the implementation of project-based learning (Cahyani et al., 2022; Menggo et al.,2023;Menggo & Darong, 2022). All this findings indicated that project-based learning activities perceived positively to the students in which it influenced their cognition, motoric, and affection (Susanti et al., 2020).

Conclusion

Based on the findings that have been discussed in the previous section, it is concluded that; there is a significant effect contributed by project-based learning activities on the eighth-grade students' learning engagement at Junior High School, Tabanan. 2) There is a significant effect contributed by project-based learning activities on the eighth-grade students' learning achievement at Junior High School, Tabanan. 3) There is a simultaneous effect contributed by project-based learning activities on the eighth-grade students' learning engagement and learning achievement at Junior High School, Tabanan. 4)The eighth-grade students have positive perceptions related to the implementation of project-based learning activities in the English learning process at Junior High School,Tabanan. These implicate the implementation of PjBL activities as the facility to emphasize students' productive skills and provide a real contextual English learning. Further investigation is suggested to find out other factors in implementing PjBL activities as a deeper insight.

References

Abidin, Z. (2020). Efektivitas Pembelajaran Berbasis Masalah, Pembelajaran Berbasis Proyek Literasi, Dan Pembelajaran Inkuiri Dalam Meningkatkan Kemampuan Koneksi Matematis. *Profesi Pendidikan Dasar*, *7*(1), 37–52. https://doi.org/10.23917/ppd.v7i1.10736

Adinda, D., & Mohib, N. (2020). Teaching and instructional design approaches to enhance students' self-directed learning in blended learning environments. *Electronic Journal of E-Learning*, *18*(2), 162–174. https://doi.org/10.34190/EJEL.20.18.2.005

Al-bahadli, K. H., Al-Obaydi, L. H., & Pikhart, M. (2023). The impact of the online

project-based learning on students' communication, engagement, motivation, and academic achievement. *Psycholinguistics*, *33*(2), 217–237.

Alisha, W. P., Sofya, R., & Sudjatmoko, A. (2022). Analysis of Student Learning Engagement in Project- Based Learning. *Proceedings of the Eighth Padang International Conference On Economics Education, Economics, Business and Management, Accounting and Entrepreneurship (PICEEBA-8 2021) Analysis*, *222*, 629–636.

Ananda, R. (2019). The Effect of Learning Strategies and Learning Independence on Learning Outcomes in Learning Evaluation Subject. *IJLRES-International Journal on Language, Research, and Education Studies*, *3*(3), 340–350. https://doi.org/10.30575/2017/IJLRES-2019091201

Artini, L. P., & Padmadewi, N. N. (2021). English Teachers' Creativity in Conducting Teaching and Learning Process in Public Senior High Schools in Bali. *Proceedings of the 5th Asian Education Symposium 2020 (AES 2020)*, *566*(Aes 2020), 281–285. https://doi.org/10.2991/assehr.k.210715.059

Astawa, N. L. P. N. S. P., Artini, L. P., & Nitiasih, P. K. (2017). Project-based learning activities and efl students' productive skills in English. *Journal of Language Teaching and Research*, *8*(6), 1147–1155. https://doi.org/10.17507/jltr.0806.16

Audina, I. P., Artini, L. P., Dewi, N. L. P. E. S., & Suwastini, N. K. A. (2023). Youtube Videos For Listening Skills During Covid-19 Pandemic: EFL Students' Views. *Jurnal Penelitian Dan Pengembangan Sains Dan Humaniora*, *6*(3), 327–334. https://doi.org/10.23887/jppsh.v6i3.55809

Barlian, U. C., Solekah, S., & Rahayu, P. (2022). Implementasi kurikulum merdeka dalam meningkatkkan mutu pendidikan. *Journal of Educational and Language Research*, *10*(1), 1–52. https://doi.org/10.21608/pshj.2022.250026

Budiarta, I. K., Artini, L. P., Padmadewi, N. N., & Nitiasih, P. K. (2023). CLIL in the Online Micro-teaching: Factors Affecting Content and Language Achievement. *International Journal of Learning, Teaching and Educational Research*, *22*(2), 37–53. https://doi.org/10.26803/ijlter.22.2.3

Cahyani, N. K. Y., Artini, L. P., & Wahyuni, L. G. E. (2022). Reading-Related Activities in English Textbook and How the Texts are Exploited in Junior High Schools. *Journal of Education Research and Evaluation*, *7*(1), 115–120. https://doi.org/10.23887/jere.v7i1.48784

Cahyani, N., Widoyoko, S. E. P., & Fadhiliya, L. (2022). Evaluasi program pembelajaran daring mata pelajaran kewirausahaan kelas XI. *Surya Edunomics*, *6*(1), 1–8.

Cahyono, T. (2022). Management of Guidance and Counseling Services in The Merdeka Belajar Curriculum. *Bisma The Journal of Counseling*, *6*(2), 265–275. https://doi.org/10.23887/bisma.v6i2.51934

Carrabba, C. (2018). The impact of project-based learning and direct instruction on the motivation and engagement of middle school students. *Language Teaching*

and Educational Research*, *1*(2), 163–174.

Charbi, M. R., & Hartoto, S. (2017). Evaluasi Hasil Belajar Mata Pelajaran Keilmuan Pencak Silat Tapak Suci Pada Siswa Kelas VIII SMP Muhammadiyah 2 Surabaya. *Jurnal Pendidikan Olahraga Dan Kesehatan*, *5*(1), 74–78.

Darmawan, C. S., Padmadewi, N. N., & Purnamika, I. G. A. L. (2024). Developing project-based learning activities in English classes for implementing Merdeka curriculum in SMPN 2 Singaraja. *Lingua Scientia*, *31*(2), 91–105.

Dewi, K. I. R., Padmadewi, N. N., & Artini, L. P. (2023). Students' Perception: The Technology Integration into Project-Based Learning in Writing Class. *Jurnal Penelitian Dan Pengembangan Sains Dan Humaniora*, *6*(3), 335–342. https://doi.org/10.23887/jppsh.v6i3.52539

Emawati, Taufiqulloh, & Fadhly, F. Z. (2024). Challenges and opportunities in implementation the Merdeka curriculum language education: A meta synthetic analysis. *English Review: Journal of English Education*, *12*(2), 869–882.

Hamdi, S., Triatna, C., & Nurdin. (2022). Kurikulum merdeka dalam perspektif pedagogik. *SAP (Susunan Artikel Pendidikan)*, *7*(1), 10–17. https://doi.org/10.30998/sap.v7i1.13015

Islam, M. K., Sarker, M. F. H., & Islam, M. S. (2022). Promoting student-centred blended learning in higher education: A model. *E-Learning and Digital Media*, *19*(1), 36–54. https://doi.org/10.1177/20427530211027721

Khomsah, F., Lestari, M. Y. W., Budiman, T. C., & Widyastuti, E. W. (2023). The Importance of Understanding Students ' Characteristics in The Learning Process of Kurikulum Merdeka. *EDUCAFL: Journal of Education of English as Foreign Langauage*, *6*(2), 102–114. https://doi.org/10.21776/ub.educafl.2023.006.02.01

Mailok, R., Ubaidullah, N., & Ahmad, U. (2016a). The effect of project-based learning against students' engagement. *International Journal of Development Research*, *6*(2), 6891–6895.

Mailok, R., Ubaidullah, N., & Ahmad, U. (2016b). The effect of project-based learning against students' engagement. *International Journal of Development Research*, *2*(6), 6891–6895.

Masruddin, M., & Nasriandi, N. (2022). Lexical and Syntactical Errors Performed by Junior High School Student in Writing Descriptive Text. IDEAS: Journal on English Language Teaching and Learning, Linguistics and Literature, 10(1), 1094-1100.

Menggo, S., & Darong, H. C. (2022). LLT Journal: A Journal on Language and Language Learning http://e-journal.usd.ac.id/index.php/LLT Sanata Dharma University, Yogyakarta, Indonesia. *LLT Journal: A Journal on Language and Language Learning*, *25*(1), 132–148. http://e-journal.usd.ac.id/index.php/LLT

Mubarok, H., Sofiana, N., & Danang, M. (2023). English Language Teaching In Indonesia ; The Implementation Of Merdeka Curriculum In Senior High

Schools. *Journal of Namibian Studies*, *35*, 2504–2519.

Nata, I. G. H., & Sujana, I. W. (2021). Efektivitas Model Project Based Learning Berbasis Tri Kaya Parisudha dalam Meningkatkan Kompetensi Pengetahuan IPS. *Thinking Skills and Creativity Journal*, *3*(2), 91–98. https://doi.org/10.23887/tscj.v3i2.32219

Padmadewi, N. N., Artini, L. P., & Jayanta, I. N. L. (2021). Teachers' Readiness in Promoting 21st Century Skills in Teaching Students at a Bilingual Primary School. *Proceedings of the 5th Asian Education Symposium 2020 (AES 2020)*, *566*(Aes 2020), 161–166. https://doi.org/10.2991/assehr.k.210715.034

Padmadewi, N. N., Suarcaya, P., Artini, L. P., Munir, A., Friska, J., Husein, R., & Paragae, I. (2023). Incorporating Linguistic Landscape into Teaching: A Project-Based Learning for Language Practices at Primary School. *International Journal of Elementary Education*, *7*(3), 467–477. https://doi.org/10.23887/ijee.v7i3.58792

Pang, H. P., & Veloo, A. (2024). The relation between learning engagement and academic self-efficacy toward academic achievement among university students. *Qubahan Academic Journal*, *4*(2), 170–183. https://doi.org/10.48161/qaj.v4n2a512

Putra, R. S., & Marhaban, S. (2021). English teachers' perceptions and constraint on the use of authentic assessment in teaching English. *English Education Journal*, *12*(2), 282–300. https://doi.org/10.24815/eej.v12i2.20457

Rahimah, S., & Widiastuty, H. (2023). 2013 Curriculum and Merdeka curriculum in English learning. *Jurnal Pendidikan: Seroja*, *2*(2), 1–17.

Rajabalee, B. Y., Santally, M. I., & Rennie, F. (2020). A study of the relationship between students' engagement and their academic performances in an eLearning environment. *E-Learning and Digital Media*, *17*(1), 1–20. https://doi.org/10.1177/2042753019882567

Randazzo, M., Priefer, R., & Khamis-Dakwar, R. (2021). Project-Based Learning and Traditional Online Teaching of Research Methods During COVID-19: An Investigation of Research Self-Efficacy and Student Satisfaction. *Frontiers in Education*, *6*(May), 1–16. https://doi.org/10.3389/feduc.2021.662850

Safaruddin, S., Ibrahim, N., Juhaeni, J., Harmilawati, H., & Qadrianti, L. (2020). The Effect of Project-Based Learning Assisted by Electronic Media on Learning Motivation and Science Process Skills. *Journal of Innovation in Educational and Cultural Research*, *1*(1), 22–29. https://doi.org/10.46843/jiecr.v1i1.5

Setiawan, E. I., Masruddin, M., & Zainuddin, Z. (2023). Semiotic Analysis and Ethnography Study on the Implementation of Local Wisdom in Economic Field at Luwu Society. IDEAS: Journal on English Language Teaching and Learning, Linguistics and Literature, 11(2), 1912-1925.

Silalahi, D. E., Siallagan, H., Munthe, B., Herman, & Sihombing, P. S. R. (2022). Investigating Students' Motivation toward the Use of Zoom Meeting Application as English Learning Media during Covid-19 Pandemic. *Journal of*

Curriculum and Teaching, *11*(5), 41–48. https://doi.org/10.5430/JCT.V11N5P41

Simbolon, N. E. (2021). EFL students' perceptions of blended learning in English language course: learning experience and engagement. *Journal on English as a Foreign Language*, *11*(1), 152–174. https://doi.org/10.23971/jefl.v11i1.2518

Suartama, I. K., Sudarma, I. K., Sudatha, I. G. W., Sukmana, A. I. W. I. Y., & Susiani, K. (2024). Student engagement and academic achievement: the effect of gamification on case and project-based online learning. *Journal of Education and Learning*, *18*(3), 976–990. https://doi.org/10.11591/edulearn.v18i3.21349

Susanti, A., Retnaningdyah, P., & Trisusana, A. (2020). Students' Perception Toward the Implementation of Project Based Learning for EFL Vocational High School. *Ternational Conference on Research and Academic Community Services (ICRACOS 2019)*, *390*(Icracos 2019), 115–119. https://doi.org/10.2991/icracos-19.2020.24

Syahril, S., Nabawi, R. A., & Safitri, D. (2021). Students' Perceptions of the Project Based on the Potential of their Region: A Project-based Learning Implementation. *Journal of Technology and Science Education*, *11*(2), 295–314. https://doi.org/10.3926/JOTSE.1153

Syakur, A., Junining, E., & Sabat, Y. (2019). Application of E-Learning As a Method In Educational Model to Increase The TOEFL Score In Higher Education. *Journal of Development Research*, *3*(2), 111–116. http://www.journal.unublitar.ac.id/jdr/index.php/jdr/article/view/88

Wahyuni, N. S. (2020). Pengaruh Model Pembelajaran Dan Kemandirian Terhadap Hasil Belajar Fisika. *Alfarisi: Jurnal Pendidikan MIPA*, *3*(1), 49–57.

Wilson, S., & Nurkhamidah, N. (2023). The implementation of Merdeka curriculum in English subject. *PEDAGOGIC: Indonesian Journal of Science Education and Technology*, *3*(1), 13–25.

Zen, Z., & Ariani, F. (2022). Academic achievement : the effect of project-based online learning method and student engagement. *Heliyon*, *8*(August), 1–12. https://doi.org/10.1016/j.heliyon.2022.e11509

Zhou, W., Zhao, L., & Kaabar, M. (2022). The Effect of Teachers' Support on Learners' Online Self-Regulated Learning: Mediating Analysis Based on Self-Efficacy. *International Journal of Emerging Technologies in Learning*, *17*(17), 207–217. https://doi.org/10.3991/ijet.v17i17.34027