

Effectiveness of Project Based Learning (PJBL) to Increase Students' Digital English Writing Motivation

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ABSTRACT

One approach to learning that places a strong emphasis on student participation is project-based learning. According to this study, Project Based Learning (PJBL) approach greatly enhances student lectures, particularly when it comes to boosting interest for English classes and helping non-English department college students develop their English writing abilities through the creation of digital writing projects. Utilizing surveys to gauge students' motivation levels and pre- and post-test scores to gauge the growth in students' skills, a quantitative methodology was applied. According to data processing, the average score for the pre-test was 76.3, and the average score for the post-test increased to 80.5. Concurrently, the findings of these calculations support the findings of student questionnaires, which indicate that project-based learning lectures might boost student enthusiasm.

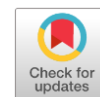
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INTRODUCTION

Proficiency in English is essential in the current globalized era for students to advance their skills. The goal of this is to get pupils ready for the workforce of the future. Gaining proficiency in the English language will prepare them for the workforce. Proficiency in writing English is one of the English language competences that students need to achieve. According to a study, students enrolled in non-English study programs frequently feel anxious when studying the language since they don't think they have the fundamentals (Nasrullah et al., 2022). Therefore, they do not have confidence in mastering English vocabulary, which affects their English writing skills. The study also revealed that students' enthusiasm to learn English was impacted by the lecturers' capacity to provide English-language course materials. Fascinating teaching strategies are required to boost student motivation and help them overcome their fear of learning English, which will enable them to write better. Learning motivation is a component that motivates student learning activities, guarantees learning activities that are sustainable, and guides learning activities to meet the objectives of the subject. Learning is frequently motivated by students' desire to succeed (Yusnan, 2022).

Using the appropriate approach, specifically Project Based Learning, is one way to enhance English writing abilities. Students are actively involved in the project-based learning approach, which might inspire them to take a more active role in honing their writing abilities. Through project-based learning and work production, the Project Based Learning (PJBL) approach integrates technology into everyday life. According to the PJBL approach,

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students work individually to develop their critical thinking abilities and problem-solving skills (Kholida & Suprianto, 2020). In addition, learning activities that are holistic, interdisciplinary, student-targeted, and integrated with real-world practices and challenges are prioritized in the project-based learning paradigm (Fiktoyana et al., 2018). These activities might span extended periods of time. Delisle stated 6 steps of Project Based Learning (Delisle, 2004). Those are (1) Making a connection with the issue: students make plans, communicate issues from their everyday life; (2) Establishing the framework: students construct a framework based on identified difficulties, with the objective of teaching them to analyse real-world scenarios and arrive at appropriate solutions; (3) Visiting the problem: instructing pupils to solve the issue and provide accurate information; (4) Re-examining the problem: Following their independent completion of the assignment, students work in small groups to revisit the problem and come up with a solution. They then submit a report based on their findings; (5) Producing a product/performance: coming up with a solution to the issue that needs to be reassessed in terms of the calibre and proficiencies of the pupils; and (6) Assessing performance and the issue: students reconsider the outcomes of the task or project they completed by examining the alternate approaches that were put forth.

Meanwhile, A research from Wibowo et al stated that Project Based Learning (PJBL) is a suitable strategy to use in improving writing skills because this strategy requires students to work together to solve a problem and think to produce a real product in the form of writing from the problem (Wibowo et al., 2015). Wulandari and Ahmad also stated in their research that there is a significant effect of using PJBL method on the writing skills of second year of senior high school students (Wulandari & Ahmad, 2020).

Writing is a way of expressing ideas through writing, this is in line with Duarte and Brewer's statement that writing is the ability to express emotions and ideas (Duarte & Brewer, 2019). Word concepts, have sufficient knowledge about diction choices, topic selection, punctuation, make good connections between sentences, and find appropriate references (Suastra & Menggo, 2020). Writing abilities are a type of language use that facilitates indirect communication rather than face-to-face interaction. This implies that communication through writing eliminates the need for in-person meetings to convey ideas. Writing is a talent that requires a great deal of practice to become proficient (Gumelar & Ginting, 2023). Writing abilities serve as a cognitive assistance for the three language skills as well as other language elements including grammar, pronunciation, and vocabulary. Thus, English writing abilities are crucial for EFL students to acquire a variety of skills related to learning the language, including the capacity for critical analysis, argumentation, and thought (Khazrouni, 2019).

In the era of digitalization, utilizing technology creatively can result in engaging and innovative learning materials and boost students' enthusiasm for improving their English writing abilities. Research on Google Reviews sparked students' interest in learning how to write English descriptions based on respondents' feelings, opinions, and experiences, and it was one of the studies that raised the issue of using digital learning materials for teaching English writing abilities (Octaviani et al., 2023). Therefore, there are many other digital learning media that can be used by lecturers to increase student learning motivation, especially in writing skills which tend to be boring due to grammar rules. Moreover, Maisani et al in their research showed that EFL students are positively motivated and have no difficulty in learning to use digital technology (Maisani et al., 2022). Thus, this research ultimately uses a project-based learning model for non-English study program students by making digital posters via the Canva application.

METHOD

This study uses a quantitative methodology. Because quantitative approaches have been around for a long time and have gained acceptance in research practices, they are also known as traditional methods. Because it is grounded in positivism, this approach is known as a positivistic approach. Because it adheres to the scientific principles of being

concrete/empirical, objective, quantifiable, logical, systematic, and repeatable, this approach qualifies as scientific. Because it can be used for confirmation or proof, this approach is also known as the confirmative method. Since statistics are used for analysis and the study material is presented as numerical data, this approach is known as a quantitative method.

Quantitative research methods can be interpreted as research methods that are based on the philosophy of positivism, used to research certain populations or samples, collecting data using research instruments, quantitative/statistical data analysis, with the aim of testing predetermined hypotheses. The data collection method in this research uses a questionnaire, scores from the pre-test and post-test. According to Bahri, a questionnaire is a data collection technique that is carried out by giving respondents a set of questions or written statements to answer (Bahri, 2018). Sedangkan Meanwhile, Sugiyono stated that a questionnaire is a data collection technique that is carried out by giving respondents a set of questions or written statements to answer (Sugiyono, 2019b).

This research used a closed questionnaire, namely a questionnaire whose answers have been determined by the researcher, the respondent just has to choose and is not given the opportunity to provide other answers, so that the respondent's answers are in accordance with research needs. This research uses a Likert rating scale as a research tool to measure the statements stated in the questionnaire. Likert scale is a method that measures attitudes by stating whether they agree or disagree with certain subjects and objects. Sugiyono stated Likert scale is used to measure attitudes, opinions and perceptions of a person or group of people about social phenomena (Sugiyono, 2019a). In this study, four answer choices were used, namely: agree, strongly agree, disagree and strongly disagree. The respondents of this research were 30 second semester students of STMIK Sinar Nusantara Surakarta, Central Java.

Students complete a pre-test at the beginning of the course by working individually on a brief essay on a technology-related topic. After that, project-based learning projects were provided to the students, who were to work in groups on digital posters written in English. Students received instruction on how to write English correctly and in accordance with English rules throughout the second through seventh meetings. Students were given the chance to choose the project theme that would serve as inspiration for their digital poster writing at the ninth through eleventh meetings, and they received assistance in finishing the English digital poster project.

At the end of the meeting, namely at the twelfth to sixteenth meeting, students present the results of the projects that have been carried out in the group. Apart from that, students also have to upload their English digital posters on their respective social media to compete to get the most "likes" from readers, results The most likes will get a reward from the lecturer.

FINDINGS AND DISCUSSION

Finding of Questionnaire

A questionnaire was conducted by researchers at the end of the semester for 30 STMIK Sinar Nusantara students. The questionnaire was conducted to find out how much influence Project-based Learning had in improving the writing skills of second semester students at STMIK Sinar Nusantara Surakarta. The questionnaire was conducted using a Google Form for all second semester students of STMIK Sinar Nusantara Surakarta. The following is the percentage of student questionnaire results using a Likert scale.

Table 1. Answer Result of Question 1: I am Very Interested in Taking An English Course

Likert Scale	Students Total	Percentage
Strongly Agree	10	33,4 %
Agree	10	33,3 %
Disagree	7	23,3 %
Strongly Disagree	3	10 %

According to the findings of the description given above, 10 students—or 33.4% of the total—strongly believe that attending English lectures is a good idea, while 10 other students agree—or 33.3% of the total. In contrast, three students (with a percentage of 10%) said they strongly disagreed with attending English lessons, while seven students (with a rate of 23.3%) said they did not agree. It is evident from the above questionnaire summary results that most students are interested in attending English lessons.

Table 2. Answer Result of Question 2: I am Very Happy and Active in Writing Articles in English

Likert Scale	Students Total	Percentage
Strongly Agree	8	26,7 %
Agree	9	30 %
Disagree	6	20 %
Strongly Disagree	7	23,3 %

According to the results of the questionnaire recap, up to 8 students—or 26.7% of the total—said they strongly agreed with the statement that they were content and actively writing articles in English, while up to 9 students—or 30% of the total—said they agreed with the questionnaire statement. This may be seen in reverse proportion, when six students (20%) say they disagree, and seven students (23.3%) say they strongly disagree. Given that the percentage of students who agree and disagree is significantly different, it can be said that more students are content and actively writing articles in English than are not actively writing.

Table 3. Answer Result of Question 3: Learning Model Using Project Based Learning Can Improve My Writing Skills

Likert Scale	Students Total	Percentage
Strongly Agree	12	40 %
Agree	14	46,7 %
Disagree	4	13,3 %
Strongly Disagree	0	0 %

From the calculation of the questionnaire results above, it can be seen that as many as 12 students with a percentage of 40% stated that they strongly agreed with the implementation of the learning model using Project Based Learning in English courses with the aim of improving students' English writing skills. Meanwhile, 14 students with a percentage of 46.7% agreed, this is in line with the previous statement. In contrast to the statement of 4 students with a percentage of 13.3% who said they strongly disagreed and there were no students who said they strongly disagreed. So it can be concluded that students really agree if the learning model using the Project Based Learning model is applied in lectures and also supports improving students' English writing skills.

Table 4. Answer Result of Question 4: I am Very Enthusiastic about Developing English Writing Skills

Likert Scale	Students Total	Percentage
Strongly Agree	8	26,7%
Agree	10	33,3 %
Disagree	7	23,3 %
Strongly Disagree	5	16,7 %

You can see those 8 students, or 26.7% of the total, said they strongly agreed, and up to 10 students, or 33.3% of the total, said they agreed, based on the findings of the questionnaire questions in number 4 above. In the meantime, the results of this inversely proportional computation show that 7 students disagree with the 23.3% percentage, while 5 students severely disagree with the 16.7% percentage. It is clear from the explanation of the computations above that more students are motivated to improve their English writing abilities. This is evident from a comparison of the questionnaire's calculating findings for question number 4, where a higher proportion of students agree than disagree.

Table 5. Question 5: Using the Project Based Learning Model Can Motivate Me to Develop My English Writing Skills

Likert Scale	Students Total	Percentage
Strongly Agree	9	30 %
Agree	12	40 %
Disagree	7	23,3 %
Strongly Disagree	2	6,7 %

As can be seen from the description of the calculation recap results for questionnaire number 5 above, a significant number of students – up to nine with a percentage of 30% and twelve with a percentage of 40% – said they agreed with the statement that using the project-based learning model can easily motivate students. pupils should be able to enhance their English language proficiency, particularly in writing.

This calculation is inversely related to the student statement: 2 students, with a percentage of 6.7%, stated that they strongly disagreed, and 7 students, with a percentage of 23.3%, stated that they disagreed that using the project-based learning model could easily motivate students to improve their English language proficiency, particularly in writing.

Therefore, even though the lecture used a project-based learning model, it can be inferred that only 9 students were not very driven to study English, whereas 21 students said that the project-based learning approach used in the lecture had motivated them. This is due to the fact that the project-based learning learning model necessitates that students participate actively and work in groups. By doing so, students can share ideas and develop their writing abilities more deeply and collaborate to solve difficulties in their assignments.

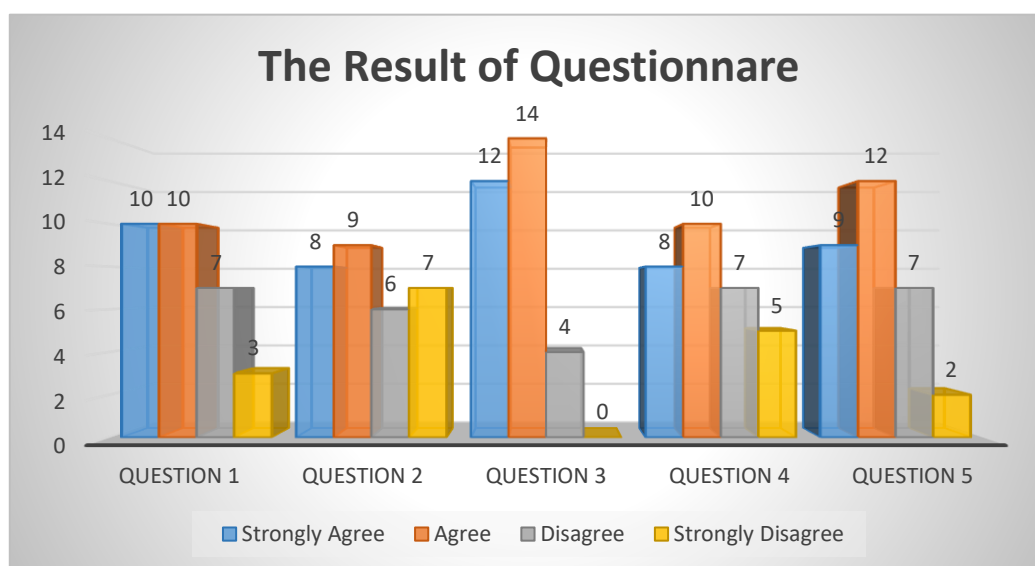


Figure 1. The Result of Questionnaire

It is clear from the summary of the completed questionnaires that employing project-based learning as a learning paradigm can boost students' enthusiasm for learning English. The percentage of questionnaire calculation results that have been given to 30 responders makes this very evident. Ten students said in questionnaire statements 1 and 2 that they highly agreed with their desire to attend English lectures, and another ten students indicated that they agreed with their desire to attend English lectures. Eight and nine pupils, meanwhile, said that they were actively producing English-language articles. This is in contrast to the students who stated that they were not interested in attending English lectures, namely 10 students and 13 students stated that they were not active in writing English articles.

It is evident from the illustration of the questionnaire results – 12 students strongly agreed and 14 students agreed that the use of the project based learning model can motivate students to improve their writing skills – that the challenges associated with using a learning model that uses project based learning to improve students' English writing skills are explained by statements 3, 4, and 5. Only four students disagreed with the use of project based learning in English lectures, which may be due to their lack of interest or motivation. In the meantime, 12 students reported feeling unenthusiastic about improving their writing abilities; this was a result of their lack of interest in learning English.

Student motivation will increase if appropriate learning models are applied in learning to support student activity in lectures. This is in line with the statement from questionnaire number 5, namely that the use of the project-based learning model in English lectures can increase student motivation. Here, 21 students stated that they strongly agreed and agreed that project-based learning could increase student motivation, especially in English lectures, whereas only 9 students who stated that they did not agree with the use of project-based learning which was able to motivate them in studying English.

Finding of Result Pre-Test and Post-Test

This research also used pre-test and post-test scores from second semester STMIK Sinar Nusantara Surakarta students. At the beginning of the lecture, students are given a pre-test to make an essay and at the end of the lecture they are given a pre-test assignment with project-based learning to make a digital English poster. Sugiyono illustrated pre-experimental design for its pre-test and post-test as follows (Sugiyono, 2019a).

Table 6. Pre-Experimental Design

Pre Test	Treatment	Post Test
O ₁	X	O ₂

O₁= Pre-test Value (Before Treatment)

X = Treatment

O₂= Post-test (After Treatment)

Table 6. Pre-test scores:

Respondent	Score
1	75
2	70
3	72
4	72
5	80
6	82
7	78
8	72
9	76
10	74
11	76
12	78
13	84
14	82
15	82
16	80
17	84
18	86
19	78
20	72
21	76
22	72
23	70
24	70
25	72
26	72
27	76
28	72
29	78
30	82
Total	2293

$$\bar{x} = \frac{\sum X_i}{n}$$

$$\bar{x} = \frac{2293}{30}$$

$$\bar{x} = 76,3$$

$\bar{x}$ = Mean value/ average

$\sum X_i$ = Total of students' scores

n = The number of students

From the calculation of the pre-test scores for STMIK Sinar Nusantara students, totaling 30 students in the second semester, the total number of pre-test scores was 2293 with an average score of 76.3 with a sufficient predicate. If you look at the table above, there is one student who got the highest score with a score of 86 and there are 3 students with the lowest score, namely with a score of 70, it can be seen that the students' mastery in writing is not optimal and still needs improvement.

Table 7. The following is a list of post test scores:

Respondent	Score
1	92
2	87
3	88
4	88
5	86
6	78
7	90
8	84
9	82
10	88
11	92
12	96
13	98
14	82
15	86
16	88
17	90
18	92
19	86
20	82
21	78
22	82
23	82
24	86
25	82
26	86
27	84
28	82
29	80
30	80
Total	2414

$$\bar{x} = \frac{\sum X_i}{n}$$

$$\bar{x} = \frac{2414}{30}$$

$$\bar{x} = 80,5$$

$\bar{x}$ = Mean value/ average

$\sum X_i$ = Total of students' scores

n = The number of students

The overall post test score is 2414, with an average score of 80.5 and a good predicate, based on the computation of post test scores conducted on 30 students enrolled in STMIK Sinar Nusantara's second semester. The post-test results above shows that two students with the lowest scores (78) and one student with the highest score (96).

Based on the analysis of post-test results from 30 students enrolled in STMIK Sinar Nusantara's second semester, the total post-test score is 2414, with an average score of 80.5 and a good predicate. Looking at the post-test results above, you can see that student 96 has the greatest score out of the two, and student 78 has the lowest.

From the results of calculating the pre-test and post-test score data, it can be seen that there has been an increase, namely from the initial average score of 76.3, it rose to 80.5 in the post-test average score. It can be concluded that the use of learning methods using project-based learning really influences the learning process and also influences improving the

results of that learning. In this research, STMIK Sinar Nusantara students experienced an increase in their English writing skills and this was supported by an increase in the results of the pre-test and post-test scores.

CONCLUSIONS

In the contemporary globalized world, students need to be proficient in all three English language skills—speaking, writing, and listening—in order to support their career once they enter the workforce. The capacity to write English accurately and well while utilizing the right learning strategies is the main topic of this study. In this study, students at STMIK Sinar Nusantara Surakarta were given more writing motivation through the use of project-based learning, particularly when it came to creating English posters for their semester two final project.

In this study, pretest and post test scores were used to prove that there was an increase in students' abilities, as well as using a questionnaire to measure students' level of motivation in studying English. And after the calculations were carried out, data was obtained from the questionnaire that the majority of students experienced increased motivation in studying English, especially increased motivation in their ability to write in English, and this was supported by the existence of the right method, namely using the project-based learning method.

Meanwhile, other supporting data from the pre-test and post-test scores, there was an increase in scores, namely from the average pre-test score of 76.3 to 80.5 in the average post-test score. From the increase in the average score, it is evident that from the start of lectures before lectures were carried out using the project-based learning method, students had low motivation and this affected their grades, whereas in the post test students had carried out lectures using the project-based learning method, so there was an increase in writing scores. their English. From this data, it can be concluded that project-based learning is able to increase student motivation in their English writing skills, especially for writing English Posters.

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