



The Implementation of the Problem-Based Learning Model to Improve Learning Outcomes in English Subject at SMP Negeri 1 Pagaran

Putri Eksonia Hutagalung

Student, Manajemen Pendidikan Kristen, Fakultas Ilmu Pendidikan Kristen, IAKN
Tarutung

*correspondence: putrihutagalung2020@gmail.com

ABSTRACT

The objective of this study is to determine whether the implementation of the Problem-Based Learning (PBL) model can improve students' learning outcomes in the English subject at SMP Negeri 1 Pagaran. The research hypothesis states: "the implementation of the Problem-Based Learning (PBL) model can enhance the learning outcomes of seventh-grade students in the English subject at SMP Negeri 1 Pagaran." The population of this study consists of all seventh-grade students at SMP Negeri 1 Pagaran, totaling 98 students, all of whom are Christians. The sample was determined using a purposive sampling technique, involving 32 students of class VII-1 as the experimental group, which received the special treatment of implementing the PBL model, and 32 students of class VII-2 as the control group, which received conventional instruction. This research employed a quasi-experimental method with a pretest-posttest control group design. The instrument used in this study was a test comprising 30 items. The research data were analyzed using the mean difference test formula (N-Gain Score). The results showed that the mean score for the experimental class was 0.6136, which falls into the medium category, while the mean score for the control class was 0.2835, categorized as low. Furthermore, an independent t-test was conducted, yielding a value of $t_{count} = 6.041 > t_{table} (\alpha = 0.05; df = 62) = 2.000$. Thus, it can be concluded that the research hypothesis (H_a) is accepted, namely that the implementation of the Problem-Based Learning (PBL) model can improve students' learning outcomes in the English subject for seventh-grade students at SMP Negeri 1 Pagaran, while the null hypothesis (H_0) is rejected.

Keywords: *Problem-Based Learning, Learning Outcomes, Learning Model*

INTRODUCTION

English language learning in schools plays a crucial role in equipping students with global communication skills. As an international language, English enables students to access a wider range of information, participate in cross-cultural conversations, and prepare themselves to face challenges in an increasingly interconnected world. Within the

classroom context, English learning typically emphasizes the four essential skills: listening, speaking, reading, and writing. Students are trained to acquire vocabulary, grammar, and correct pronunciation through varied approaches such as classroom discussions, conversational simulations, and essay writing exercises. Learning outcomes in English instruction are measured across three domains: cognitive, affective, and psychomotor. These outcomes represent the knowledge, skills, and attitudes that students acquire through the teaching and learning process. More than mere academic achievement, learning outcomes signify behavioral changes that reflect the effectiveness of the educational process. Such behavioral transformations do not occur in isolation but unfold across particular domains depending on the intended educational objectives. Thus, successful learning can be evaluated through student achievement, often measured against established standards such as the Minimum Mastery Criteria (*KKM*). Indicators of learning outcomes can be grouped into the cognitive domain (knowledge, comprehension, application, analysis, synthesis, and evaluation), the affective domain (receiving, responding, and valuing), and the psychomotor domain (fundamental, generic, coordinated, and creative movements). Cognitive outcomes emphasize academic knowledge acquisition, affective outcomes relate to attitudes and values, and psychomotor outcomes concern skill development. Achievement in these domains indicates whether instructional goals have been met. Student achievement, however, is shaped not only by individual capacities but also by the teaching models employed by educators. Marlina, as cited by Nirmala Mega, highlights that the Problem-Based Learning (PBL) model enables educators to innovate in classroom practices. PBL is shown to positively influence learning outcomes, student participation, motivation, and the development of critical and analytical thinking. Similarly, Pujiati underscores several advantages of PBL: students gain deeper understanding by discovering concepts themselves, they actively engage in problem-solving, learning becomes more meaningful as it connects with real-life contexts, and they develop independence, maturity, and social responsibility through collaboration. Despite these strengths, PBL is not without its challenges, which must also be addressed in practice. The effectiveness of student learning outcomes is further influenced by internal and external factors. Internal factors include maturity, intelligence, practice, personal motivation, and individual characteristics. External factors encompass family support, teacher competence, teaching methods, availability of learning tools, school environment, and broader social motivation. The teaching model, therefore, functions as a conceptual framework that provides systematic procedures for organizing learning experiences and serves as a guideline for teachers to plan and execute effective instruction. Among various models, PBL has emerged as one of the most promising strategies for fostering active and meaningful learning.

PBL is defined as a problem-driven instructional method that requires students to work collaboratively to identify solutions, engage in critical and analytical thinking, and utilize appropriate learning resources. Unlike traditional lecture-based instruction, PBL exposes students to real-life problems that serve as a context for developing problem-solving and creative thinking skills. According to Erwin, as cited in Anik Handayani and Henny Dewi, PBL focuses on authentic problems drawn from students' daily lives. This approach ensures that knowledge is not teacher-dependent but rather constructed by students

through direct engagement with meaningful issues. SMP Negeri 1 Pagaran, a junior high school located in Pagaran District, has adopted PBL in its English instruction. However, the implementation process faces several challenges. Based on interviews with the English teacher, Mrs. Nursanty Pasaribu, it was revealed that while the school has begun implementing PBL, its application has not been consistent across lessons. The primary obstacles include limited teacher readiness and insufficient understanding of innovative teaching models such as PBL. Many teachers remain accustomed to traditional methods such as lectures and drill exercises, which are perceived as more familiar and manageable. This reliance on conventional practices slows the adoption of PBL, as teachers must adapt to a more complex, interactive, and student-centered approach.

Another challenge lies in the lack of professional development opportunities. Limited training and guidance hinder teachers' ability to integrate PBL effectively into the existing curriculum. Without adequate technical support, teachers struggle to implement advanced approaches such as project-based learning, flipped classrooms, or technology-based instruction, all of which could complement PBL and increase student engagement. Infrastructure limitations also exacerbate the situation. Although the school possesses some technological resources, they remain insufficient to fully support innovative instructional models. The availability of projectors is inadequate, internet access is unstable, and not all students have personal devices such as laptops or smartphones. These constraints create disparities in learning opportunities, as some students can benefit from technology while others remain reliant on traditional methods. Consequently, the integration of PBL with digital tools has yet to reach its full potential. Furthermore, students themselves encounter difficulties in mastering English skills within the PBL framework. One major issue is limited vocabulary and weak grammatical knowledge, which hinder students' ability to actively participate in discussions, express opinions, and construct sentences. Fear of making mistakes often discourages them from engaging in conversations, reducing their involvement in PBL activities. Listening and speaking skills are particularly challenging, as students frequently struggle to understand instructions or dialogues in English, especially when materials are complex. Preliminary observations and assessment data confirm that English learning outcomes at SMP Negeri 1 Pagaran have not yet met expected standards. According to Mrs. Nursanty Pasaribu, the seventh-grade students' English test scores range between 30 and 75, which falls below the mastery threshold. Many students exhibit difficulties across all four language skills—reading, writing, listening, and speaking—as reflected in their low exam scores and limited classroom participation. The results of the mid-semester examination further highlight this issue: out of 88 students, only 19 achieved the minimum mastery criteria, while the majority scored below the standard. This research seeks to explore practical solutions for enhancing the quality of English instruction at SMP Negeri 1 Pagaran. The study focuses on investigating the effectiveness of Problem-Based Learning as an instructional model to improve student learning outcomes. By situating learning within real-world contexts, encouraging collaborative problem-solving, and fostering independent thinking, PBL is expected to address existing weaknesses in English instruction and provide a pathway toward achieving better learning outcomes. Through this study, the researcher aims not only to assess the direct impact of PBL on English achievement but also to shed light on the broader implications for teacher readiness, infrastructure development, and student

engagement. The application of PBL is envisioned as a means to transform English learning from a passive, teacher-centered activity into an active, student-driven process that equips learners with both linguistic competence and critical life skills.

METHODS

The research method employed in this study is the quantitative method, as the research relies on numerical data that can be processed using statistical techniques. Specifically, the research adopts a quasi-experimental method involving one experimental (treatment) class and one control class, applying the Pretest-Posttest Control Group Design. In this design, the pretest is administered to measure students' learning outcomes prior to the treatment. This allows for an accurate assessment of students' knowledge by providing a baseline for comparison. The posttest, on the other hand, is conducted to determine the development of students' creativity after the treatment has been applied. The implementation of the study began with the administration of a pretest to both groups. Subsequently, the experimental class received instruction through the Problem-Based Learning model, while the control class was taught using conventional teaching methods. Following these treatments, a posttest was administered to each group to examine the improvement in students' learning outcomes. The research was conducted at SMP Negeri 1 Pagaran, chosen by the researcher to investigate potential issues that may occur in the school. The decision was also based on the researcher's prior knowledge of the students' characteristics through observation, which provided valuable insights for the research process. The study was carried out from early January to February, following the 2024/2025 academic calendar. The research schedule was aligned with the school's learning timetable to ensure the teaching material corresponded with the ongoing lessons. The primary instrument for data collection was a test. The test sheets contained a set of questions designed to measure students' cognitive abilities as learning outcomes. A trial test was conducted to ensure the validity and reliability of the instrument so that it could effectively capture the required data. The instrument was piloted with 30 seventh-grade students of SMP Negeri 2 Pagaran, who were selected as respondents because they shared homogeneous characteristics with the actual research participants. This step was intended to determine whether the test items were valid and suitable for use in the study.

RESULT AND DISCUSSION

The highest achievement in the pre-test was obtained on item number 6, with a score of 32 and an average value of 1.00. The lowest achievement was found on item number 9, with a score of 3 and an average value of 0.09. The pre-test results of Grade VII students at SMP Negeri 1 Pagaran for the 2024/2025 academic year were then converted into a standardized score of 100, and subsequently processed for research data analysis. Furthermore, in the post-test, the highest achievements were recorded on items number 1, 4, 5, 13, 15, 21, and 22, each with a score of 32 and an average value of 1.00. The lowest achievement was observed on item number 8, with a score of 17 and an average value of 0.53. The post-test results of Grade VII students at SMP Negeri 1 Pagaran for the 2024/2025 academic year were also converted into a standardized score of 100, as shown in Appendix 13, and subsequently processed for research data analysis. The mean score

of the experimental class was 0.6136, which falls within the medium category, corresponding to a gain score of 0.3-0.7. This indicates that the Problem-Based Learning model was effective in improving students' learning outcomes. In contrast, the mean score of the control class was 0.2835, which falls within the low category, corresponding to a gain score of < 0.3 . This suggests that conventional teaching (control class) was not effective in enhancing students' learning outcomes. Based on the average scores achieved in both the experimental and control classes, it can be observed that the mean learning outcomes of Grade VII students at SMP Negeri 1 Pagaran in the 2024/2025 academic year increased from 28.35% to 61.36%. This indicates that the implementation of the Problem-Based Learning (PBL) model successfully improved learning outcomes in English, reaching a "Good" level of achievement (B).

The decision-making criteria applied were as follows: The decision making criteria are if $F_{\text{count}} < F_{\text{table}}$, then the data is homogeneous. Conversely, if $F_{\text{count}} \geq F_{\text{table}}$, then the data is not homogeneous. Based on the provisions above, it is known that the F_{count} value is 0.862 which will be compared with the F_{count} value with the provisions of dk in the numerator (n_1-1 ; $32-1=31$) and dk in the denominator (n_2-1 ; $32-1=31$) which is 1.62. So it is known that $F_{\text{count}} < F_{\text{table}}$ ($0.862 < 1.62$), so it can be concluded that the variance of the N-Gain data for experimental class data and control class data is the same or homogeneous ($0.862 < 1.62$), it can be concluded that the variance of the N-Gain data between the experimental and control classes is equal, or homogeneous. Given the homogeneous variance, hypothesis testing was carried out using the Equal Variance Assumed approach. The results show that $t_{\text{calculated}} = 6.041$, which is greater than $t_{\text{table}} = 2.000$ at the significance level $\alpha = 0.05$ with $df = 62$. Furthermore, the significance value of Equal Variance Assumed was $0.000 < 0.05$. Since $t_{\text{count}} > t_{\text{table}}$ ($6.041 > 2.000$), the null hypothesis (H_0) was rejected, and the alternative hypothesis (H_a) was accepted. The rejection of H_0 and acceptance of H_a indicate that the application of the Problem-Based Learning (PBL) model was successful in improving students' learning outcomes in English at SMP Negeri 1 Pagaran during the 2024/2025 academic year, achieving a "Good" level of success (B). This confirms that the PBL model effectively enhances English learning outcomes for Grade VII students. After tabulating, processing, and analyzing the respondents' answers, it was found that the overall mean learning outcomes of Grade VII students at SMP Negeri 1 Pagaran in the 2024/2025 academic year increased significantly. The mean score of the control class was 28.35%, while that of the experimental class reached 61.36%. This indicates that the implementation of the Problem-Based Learning (PBL) model successfully improved students' learning outcomes in English, achieving a "Good" level of success (B). Statistical testing, conducted to determine the acceptance or rejection of the research hypothesis, revealed that the Equal Variance Assumed value of $t_{\text{calculated}}$ was greater than t_{table} ($\alpha = 0.05$; $df = 62$), specifically $t_{\text{count}} = 6.041 > t_{\text{table}} = 2.000$.

This was also confirmed by the significance value of Equal Variance Assumed, which was $0.000 < 0.05$. These results confirm that the application of the PBL model effectively improved students' learning outcomes in English for Grade VII students at SMP Negeri 1 Pagaran. This finding is consistent with previous studies. Nurbaeti, Ani Susanti, and Suwinarni, in their research entitled "*Penerapan Model Problem Based Learning untuk*

Meningkatkan Hasil Belajar Peserta Didik dalam Pembelajaran Bahasa Inggris,” demonstrated similar results, showing that the use of the PBL model enhances students’ English learning outcomes. Their study confirmed that PBL encourages students to be more active in the learning process and strengthens their understanding of the subject matter. Similarly, Wardhani Ikawati, in her research titled “*Meningkatkan Hasil Belajar Bahasa Inggris Siswa dengan Menggunakan Metode Problem Based Learning,*” concluded that PBL is effective in improving students’ learning outcomes. According to her study, PBL helps students to engage more actively in the learning process and enables them to develop a deeper understanding of the material through a problem-centered approach. Based on the findings of this study, it can be affirmed that the implementation of the Problem-Based Learning (PBL) model successfully improved English learning outcomes at SMP Negeri 1 Pagaran in the 2024/2025 academic year. These results align with various previous studies that have also demonstrated the effectiveness of PBL in enhancing student learning outcomes, particularly in English. Thus, the application of PBL is not only theoretically relevant but is also empirically proven to be an effective instructional model for improving the quality of both the process and outcomes of English learning at the junior high school level.

CONCLUSION

Based on the statistical test conducted to determine the acceptance or rejection of the research hypothesis, it was found that the value of Equal Variance Assumed showed $t_{\text{count}} > t_{\text{table}}$ ($\alpha = 0.05$; $df = 62$), namely $t_{\text{count}} = 6.041 > t_{\text{table}} = 2.000$. This result was also supported by the significance value of Equal Variance Assumed, which was $0.000 < 0.05$. Therefore, it can be concluded that the application of the Problem-Based Learning (PBL) model significantly improved the English learning outcomes of Grade VII students at SMP Negeri 1 Pagaran. The significant improvement in learning outcomes can be observed from the average score in the experimental class, which was 61.36% and fell within the “Good” category (B). In contrast, the average score in the control class was 28.35%, categorized as “Poor” (D). Thus, it can be understood that the implementation of the Problem-Based Learning model successfully enhanced English learning outcomes at SMP Negeri 1 Pagaran in the 2024/2025 academic year, achieving a “Good” level of success (B).

BIBLIOGRAPHY

- Ahmad Susanto. (2012). *Teori Belajar dan Pembelajaran di Sekolah Dasar*. Jakarta: Kencana Prenadamedia Group.
- Ajeng Retno Utami, Suhendri, Primaningkrum Dian. (2019). Hubungan Kreativitas Guru dengan Hasil Belajar Siswa. *Bimbingan dan Konseling Indonesia* 4(2).
- Arends. (2024). *Belajar dan Pembelajaran*. Jakarta: Rineka Cipta.
- Byslina Maduwu. (2016). Pentingnya Pembelajaran Bahasa Inggris di Sekolah.” *Jurnal Warta Edisi* 50(4).

- Daryanto. *Evaluasi Pendidikan*. Jakarta: PT.Rineka Cipta, 2008.
- Djamarah,S.B dan Zain, A. (2014). *Strategi Belajar Mengajar*. Jakarta: Rineka Cipta S.
- Dwi Novianti, M. Barkah Salim. (2018). Pengaruh Pemberian Pre Test Dan Post Test Terhadap Kesiapan Dan Hasil Belajar Ipa Siswa Kelas Vii Di Smp Negeri 7 Metro Tahun Pelajaran 2015/2016. *Kappa Journal* 2(1), 1–8.
- Eny Munisah. (2021). Peningkatan Kemampun Bahasa Inggris Siswa Sekolah Dasar Melalui Program Teras Belajar. *Jurnal Elsa* 1(1), 24–30.
- Erawati, Desi. (2022). Meningkatkan Motivasi dan Hasil Belajar Peserta Didik Melalui Penerapan Model Pembelajaran Problem Based Learning Pada Mata Pelajaran Matematika Kelas 1 SD Negeri 6 Pajar Bulan. *SHEs: Conference Series* 5(5), 93-108.
- Handayani, Anik, dan Henny Dewi Koeswanti. (2021). Meta-Analisis Model Pembelajaran Problem Based Learning (PBL) Untuk Meningkatkan Kemampuan Berpikir Kreatif. *Jurnal Basicedu* 5(3), 55-134.
- Harahap, Heri Hari Yanti, Samakmur Samakmur, dan Nurbaiti Nurbaiti. (2023). Peningkatan Hasil Belajar Siswa Dengan Menggunakan Model Pembelajaran Think Pair Share (Tps) Pada Materi Tema 1 Sub Tema 3 Di Kelas Iii Sd Negeri 101350 Purbatua.” *Jurnal Jipdas (Jurnal Ilmiah Pendidikan Dasar)* 3(2), 44–59.
- Hartono. (2010). *Statistik Untuk Penelitian*. Yogyakarta: Pustaka Pelajar.
- Hotimah, Husnul. (2020). Penerapan Metode Pembelajaran Problem Based Learning Dalam Meningkatkan Kemampuan Bercerita Pada Siswa Sekolah Dasar. *Jurnal Edukasi* 7(3), 5.
- Idris Usman, Muhammad. (2012). Model Mengajar Dalam Pembelajaran: Alam Sekitar, Sekolah Kerja, Individual, dan Klasikal. *Lentera Pendidikan: Jurnal Ilmu Tarbiyah dan Keguruan* 15(2), 25-66.
- Ikawati, Wardhani. (2023). Meningkatkan Hasil Belajar Bahasa Inggris Siswa dengan Menggunakan Metode Problem Based Learning. *Jurnal Ilmu Pendidikan (JIP) STKIP Kusuma Negara* 14(2), 93-186.
- Juanidi. (2020). Implementasi Model Pembelajaran Problem Based Learning Dalam Meningkatkan Sikap Berpikir Kritis. *Jurnal Socius* 9(1), 25.
- Khakim, Nor. (2022). Penerapan Model Pembelajaran Problem Based Learning Dalam Meningkatkan Motivasi Belajar PPKn Di SMP YAKPI 1 DKI Jaya. *Jurnal Citizenship Virtues* 2(2), 58-347.
- Marnida. (2020). Penerapan Model Pembelajaran Problem Based Learning Untuk Meningkatkan Hasil Belajar Bahasa Inggris Siswa Kelas IX B SMP Negeri 24

Bandarlampung Tahun Pelajaran 2019 / 2020. *Jurnal Guru Indonesia* 8(6), 49-137.

- Maulidina, Alba, Adang Effendi, dan dan Yoni Sunaryo. (2020). Model Pembelajaran Problem Based Learning (Pbl) Untuk Meningkatkan Kemampuan Pemecahan Masalah Matematis Siswa SMP. *AdMathEdu: Jurnal Ilmiah Pendidikan Matematika, Ilmu Matematika dan Matematika Terapan* 10(1), 45.
- Muhiddin. (2018). Problem Based Learning (PBL) Memberdayakan Keterampilan Berpikir Kritis Pebelajar Pada Pembelajaran Biologi Problem Based Learning (PBL) Empowering Student Critical Thinking Skills at Biological Learning. *Proseding Seminar Biologi dan Pembelajarannya* 20(8), 599–608.
- Nana Sudjana. (2016). *Penilaian Hasil Proses Belajar Mengajar*. Bandung: PT. Remaja Rosdakarya
- Nirmala, Mboa, Ajito Mega, dan Theresia Timoteus. (2024). Meningkatkan Hasil Belajar dengan Menggunakan Model Pembelajaran Problem Based Learning (PBL) pada Materi Peluang Siswa Kelas VIII SMPK St. Theresia Kupang. *Journal on Education* 6(2), 122-301.
- Nurbaeti, Ani Susanti, dan Suwinarni. (2023). Penerapan Model Problem Based Learning Untuk Meningkatkan Hasil Belajar Kimia Peserta Didik.” *Jurnal Pendidikan dan Profesi Keguruan* 2(2), 166.
- Nurul Yuli Rachmawati. (2020). Pengaruh Model Pembelajaran Problem Based Learning (PBL) terhadap Kemampuan Berpikir Kritis dan Pemecahan Masalah pada Mata Pelajaran Administrasi Umum Kelas X OTKP di SMK Negeri 10 Surabaya.” *Jurnal Pendidikan Administrasi Perkantoran (JPAP)* 9(2), 24-59.
- Priansa, Donni Juni. (2018). *Pengembangan Strategi & Model Pembelajaran*. Bandun: Cv. Pustaka Setia.
- Ramadhani, Saravina Putri, Firda Maya Pratiwi, Zefi Hanatul Fajriah, dan Bambang Eko Susilo. (2024). Efektivitas Model Problem Based Learning (PBL) untuk Meningkatkan Kemampuan Pemecahan Masalah Matematis terhadap Pembelajaran Matematika.” *Prima* 7(2), 30-724.
- Rambe, Andina Halimsyah. (2022). Efektivitas Model Pembelajaran Problem Based Learning pada Siswa Kelas 5 Sekolah Dasar. *Jurnal Pendidikan Dan Konseling (JPDK)* 4(4), 28-423.
- Sardiyannah, Sardiyannah. (2020). Belajar Dan Faktor Yang Mempengaruhinya.” *Jurnal Al-Qalam: Jurnal Kajian Islam & Pendidikan* 7(1), 23-44.
- Sudjana. (2010). *Dasar-Dasar Proses Belajar Mengajar*. Bandung: Sinar Baru Algensindo

- Suginem. (2023). Penerapan Model Problem Based Learning (Pbl) Untuk Meningkatkan Keaktifan dan Hasil Belajar Siswa.” *Jurnal Pendidikan dan Profesi Keguruan* 2(2), 207.
- Suprijono. (2009). *Cooperative Learning Teori Dan Aplikasi Paikem*. Yogyakarta: Pustaka Belajar.
- Syaiful Bahri Djamarah dan Aswan Zain. (2010). *Strategi Belajar Mengajar*. Jakarta: PT Rineka Cipta.
- Syamsidah, dan Hamidah Suryani. (2018). *Model Peoblem Based Learning (PBL)*. Yogyakarta: Cv. Budi