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USING PROBLEM-BASED LEARNING STRATEGY TO ENHANCE STUDENTS' SPEAKING SKILL IN MAN 1 LUBUKLINGGAU

Anggun Luthfiyyah[1]
Universitas PGRI Silampari

Ani Fiani[2]
Universitas PGRI Silampari

Episiasi[3]
Universitas PGRI Silampari

anggunluthfiyyah@gmail.com

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ABSTRACT

This research aimed to investigate the effectiveness of the Problem-Based Learning (PBL) strategy in enhancing students' speaking skills at MAN 1 Lubuklinggau. The study employed a pre-experimental research design using a one-group pre-test and post-test model. A total of 44 students from class XI.1 were selected through cluster sampling. Data were collected using a speaking performance test. The findings revealed that the average pre-test score was 44.59 and increased to 79.77 in the post-test. Statistical analysis using a paired sample t-test showed a t-count of 21.32, which was significantly greater than the t-table value of 2.016 at a 0.05 significance level. These findings support the conclusion that the PBL strategy significantly improves students' speaking skills and fosters a more engaging learning environment.

Keywords: *Asking and Giving Opinion, Problem-Based Learning Strategy, Senior High School Speaking Skill, Teaching Students.*

INTRODUCTION

Speaking is one of the important skills in English language learning, which functions as the primary means of communication to express ideas, emotions, and thoughts. This skill involves a combination of producing, receiving, and processing information to create meaning (Ning & Hornby, 2010). Richards (2008) emphasized the importance of helping students use and communicate effectively in English, while Brown (2004) indicated that oral communication is the main goal in

language education. However, for Indonesian students, mastering speaking skills remains a challenge due to limited daily exposure to English as a foreign language. Observation results at MAN 1 Lubuklinggau revealed that students experienced significant difficulties in speaking English. Based on interviews with English teachers and students, the problems faced included frequent pauses, grammatical errors, poor pronunciation, and limited vocabulary. These challenges were exacerbated by the teaching strategies applied in the classroom, which relied heavily on drill and practice methods, thus providing little opportunity for interactive or real-life communication.

To address this problem, the researcher proposed the use of Problem-Based Learning (PBL) as an alternative approach. PBL is a student-centered method that engages students in solving real-world problems collaboratively, thereby improving their problem-solving, communication, and self-assessment skills (Duch et al., 2001; Rohim, 2014). Previous studies (Fahmi et al., 2021; Musdalifah et al., 2024; Mathwarni, 2019) have shown the effectiveness of PBL in improving speaking skills and encouraging student engagement.

However, there was still a lack of research focusing on the implementation of PBL in high school settings, especially in the context of English as a foreign language in Indonesia. Therefore, this study aimed to investigate the effectiveness of the Problem-Based Learning strategy in improving students' speaking skills and to explore students' responses to the strategy at MAN 1 Lubuklinggau.

LITERATURE REVIEW

Speaking Skills

Speaking is recognized as one of the core competencies in mastering English as a foreign language. Brown (2007) characterizes speaking as an interactive process through which meaning is constructed via the production, reception, and processing of information. It necessitates active participation from both the speaker and listener. Furthermore, Brown (2004) posits that the ability to speak a language signifies communicative competence, particularly in the context of sustaining meaningful conversations. Mufaidah (2004) similarly describes speaking as a dynamic and reciprocal process in which meaning is collaboratively developed. Afrizal (2015) emphasizes that the communicative learning model contributes to effective speaking by integrating linguistic components such as grammar, vocabulary, fluency, and comprehension.

The functional aspects of speaking are commonly classified into three categories: interaction, transaction, and performance, as articulated by Brown and Yule in Richards (2008). Speaking as interaction pertains to social exchanges, such as greetings and casual conversation. Speaking as transaction is concerned with the

accurate transmission of information, often requiring clarification and negotiation of meaning. Meanwhile, speaking as performance involves prepared speech acts, such as public speaking and storytelling, where linguistic accuracy and structured delivery are emphasized.

Brown (2004) delineates five types of speaking activities: imitative, intensive, responsive, interactive, and extensive. Imitative speaking involves repetition and pronunciation practice. Intensive speaking requires focused production of grammatical or phonological elements. Responsive speaking entails brief exchanges, such as greetings or simple questions. Interactive speaking encompasses longer conversations involving negotiation and clarification, while extensive speaking involves sustained monologues such as speeches or oral reports.

Rao (2019) highlights multiple benefits of mastering speaking skills, including increased participation, the enhancement of critical thinking, improved academic and professional prospects, and greater intercultural communication competence. The pedagogical practice of teaching speaking must therefore be purposeful and systematic. Harmer (1998) identifies three instructional purposes for engaging students in speaking activities: rehearsal for real-world application, the provision of feedback to enhance learning, and increased learner motivation through active participation. Bashir et al. (2011) underscore that effective speaking requires mastery of linguistic mechanics (pronunciation, grammar, vocabulary), communicative functions (transactional and interactional), and sociocultural norms (turn-taking and conversational appropriateness).

In terms of assessment, Brown (2004) proposes five core components of speaking proficiency: pronunciation, vocabulary, grammar, fluency, and comprehension. Pronunciation encompasses the clarity and accuracy of speech sounds, stress, and intonation. Vocabulary refers to the appropriateness and range of lexical choices. Grammar includes syntactic accuracy and sentence structure. Fluency is characterized by the smooth and uninterrupted flow of speech. Comprehension pertains to the speaker's ability to understand and appropriately respond to spoken input.

Problem-Based Learning (PBL)

Problem-Based Learning (PBL) represents a pedagogical approach that emphasizes learner-centered inquiry, collaboration, and real-world problem-solving. Rohim (2014) describes PBL as a strategy that facilitates student engagement through the resolution of authentic and complex problems. Baden et al. (2004) assert that PBL fosters the development of metacognitive and reasoning skills. Torp and Sage (2002) view PBL not only as an instructional strategy but also as a framework for curriculum design and assessment grounded in experiential learning theory. Tan (2003) maintains that PBL encourages self-directed learning, team-based collaboration, and reflective thinking. Delisle, as cited in Tan (2003),

affirms that PBL is inclusive of diverse learner abilities and enhances cooperative problem-solving.

Tan (2002) further outlines the defining features of PBL: learning is initiated by complex, ill-structured problems; knowledge is integrated from multiple disciplines; learning is student-driven and inquiry-based; and collaboration is essential to constructing knowledge. Teachers serve as facilitators rather than direct transmitters of information, promoting higher-order thinking and reflective learning. According to Newman et al. simplied by Nengah (2020), the PBL process involves five stages: (1) orienting students to the problem, (2) organizing learning activities, (3) guiding investigations, (4) developing and presenting solutions, and (5) analyzing the outcomes.

Despite its pedagogical merits, PBL is not without limitations. Nilson (2010) identifies potential challenges such as time constraints, the demand for extensive instructional resources, and complexities in student assessment. Nevertheless, empirical evidence supports the effectiveness of PBL in fostering learner autonomy, motivation, and critical thinking—particularly in the domain of speaking skills.

Dahlan, as cited in Rohim (2014), outlines a procedural framework for implementing PBL in speaking instruction. It begins with the introduction of a relevant problem or topic, followed by the formation of student groups. Guiding questions are then provided to facilitate discussion. Students are encouraged to articulate their ideas, after which they present their findings. The teacher's role is to facilitate rather than dominate the discourse. Finally, students are invited to summarize or retell the outcomes of their discussions, reinforcing comprehension and oral proficiency.

In summary, the integration of PBL within the teaching of speaking skills offers a robust and dynamic framework for enhancing learner engagement, communicative competence, and critical thinking. It aligns with current pedagogical paradigms that prioritize active learning, meaningful interaction, and the development of transferable skills in language education.

METHOD

Research Design

This study applied a quantitative approach using a pre-experimental design, specifically the one-group pre-test and post-test design. This design was selected because it enabled the researcher to measure the effect of the treatment namely, the implementation of the Problem-Based Learning (PBL) strategy on students' speaking skills by comparing their performance before and after the intervention. In this design, the researcher administered a pre-test to measure students' initial

speaking ability, followed by a treatment phase in which the PBL strategy was implemented, and concluded with a post-test to assess any improvement in speaking performance.

According to Cohen et,al (2007), pre-experimental designs are suitable for classroom-based research when random assignment is not feasible, but the researcher still wants to examine cause-effect relationships within a single group. In this case, no control group was used; instead, the same group of students served as both the experimental and comparison group over time. This approach allowed the researcher to focus closely on how the PBL strategy influenced the development of speaking skills within a real classroom setting.

The treatment was implemented over several meetings, during which students engaged in problem-solving tasks designed around the theme of asking and giving opinions. The instructional materials included videos, group discussions, and guided speaking activities aligned with the stages of the PBL model. Throughout the process, students worked collaboratively to analyze problems, discuss ideas, and present their solutions orally in English. This approach was expected to promote authentic communication and active learner participation.

Although the design lacked a control group, the use of pre- and post-testing provided valid comparative data to assess learning gains. The impact of the PBL strategy was then analyzed statistically using a paired sample t-test to determine whether the differences between the pre-test and post-test scores were significant. This design was considered appropriate for achieving the study's objectives, which were to evaluate the effectiveness of PBL in improving speaking skills and to gather students' responses toward its use in the classroom.

Participants

According to Fraenkel et al (2023), cluster random sampling is a research strategy that selects groups, or clusters, of subjects rather than individuals drawn at random from the population. The participants were 44 eleventh-grade students from MAN 1 Lubuklinggau, selected using cluster sampling technique from the population of 354 students. One class was chosen as the sample group for the implementation of the PBL strategy.

Instruments

The main instrument used in this research was a speaking performance test, which consisted of a pre-test and a post-test. These tests were designed to assess students' speaking ability before and after the implementation of the Problem-Based Learning (PBL) strategy. The test topic focused on "Asking and Giving Opinion", which was aligned with the material taught during the treatment phase.

Each test was conducted orally, where students were given a prompt and asked to speak for a few minutes expressing their personal opinions. The prompts were designed to reflect real-life situations, encouraging students to speak naturally

and meaningfully using English. The same speaking task and scoring criteria were applied in both the pre-test and post-test to ensure consistency and comparability of results.

To evaluate students' performance, the researcher used an analytical speaking rubric adapted from Brown (2004). This rubric assessed five key aspects of speaking:

1. Fluency: smoothness and flow of speech.
2. Pronunciation: clarity and accuracy of sounds.
3. Vocabulary: range and appropriateness of words used.
4. Grammar: correct use of grammatical structures.
5. Comprehension: ability to understand the topic and respond appropriately.

Each criterion was rated on a scale from 1 to 5, resulting in a maximum total score of 25 for each student. The scores were then used to calculate the mean, standard deviation, and overall improvement from the pre-test to the post-test. These data provided a clear and objective measurement of the effectiveness of the PBL strategy in enhancing students' speaking skills.

Procedure

The research was conducted in the following stages:

1. Pre-Test: At the beginning of the study, the researcher conducted a pre-test to measure the students' initial speaking ability. The pre-test was administered to 44 students of class XI.1 at MAN 1 Lubuklinggau. The test was conducted orally and focused on the topic "Asking and Giving Opinion." Each student was asked to respond to a prompt that required them to express their opinions in English. Their performances were assessed using a speaking rubric that measured fluency, vocabulary, pronunciation, grammar, and comprehension.
2. Treatment: The PBL strategy was implemented over several meetings. Students were presented with real-life problems using videos and PowerPoint presentations, which encouraged them to think critically and speak actively in groups. The main material during treatment was asking and giving opinion.
3. Post-Test: After the treatment sessions, the researcher administered a post-test using the same format as the pre-test to assess students' improvement in speaking. The oral test required students to perform a speaking task on the same theme (asking and giving opinion) without the use of video stimuli. Students' performances were scored using the same rubric as in the pre-test to ensure consistency and reliability.

Data Analysis

The data from the pre-test and post-test were analyzed using a matched t-test to determine the significance of the students' improvement in speaking. The data in this study were analyzed both quantitatively. The quantitative data were obtained from students' speaking scores in the pre-test and post-test. These scores were analyzed using descriptive statistics to calculate the mean, highest score,

lowest score, and standard deviation, in order to provide a clear overview of students' performance before and after the treatment. To determine whether there was a significant difference between the pre-test and post-test scores, the researcher applied a paired sample t-test (also known as matched t-test). This inferential statistical test was used to assess the effectiveness of the PBL strategy in improving students' speaking ability. The t-test compared the means of the two related samples (pre-test and post-test scores) and was calculated using the formula for t-count, which also included the standard deviation of the gain score (SDd) and the standard error of the difference (SED). The result was then compared to the critical value from the t-distribution table (t-table) at a 0.05 level of significance and 43 degrees of freedom. If the t-count exceeded the t-table value, it indicated that the difference between the two means was statistically significant.

FINDING

The findings of this research are presented based on students' speaking skill development as analyzed through pre-test and post-test scores.

Results of Pre-test and Post-test

The data from the pre-test showed that the majority of students had poor speaking skills. Only one student met the minimum passing criteria set by the school, while the rest failed to achieve a satisfactory score. This indicated that prior to the intervention, students lacked adequate ability in several aspects of speaking, including grammar, pronunciation, fluency, vocabulary, and comprehension.

Following the PBL intervention, the post-test results revealed a significant improvement in students' speaking abilities. The number of students who passed increased to 30 out of 44, and the overall mean score rose from 44.59 to 79.77. This sharp increase demonstrates that the PBL strategy helped students develop more confidence and competence in expressing their ideas orally.

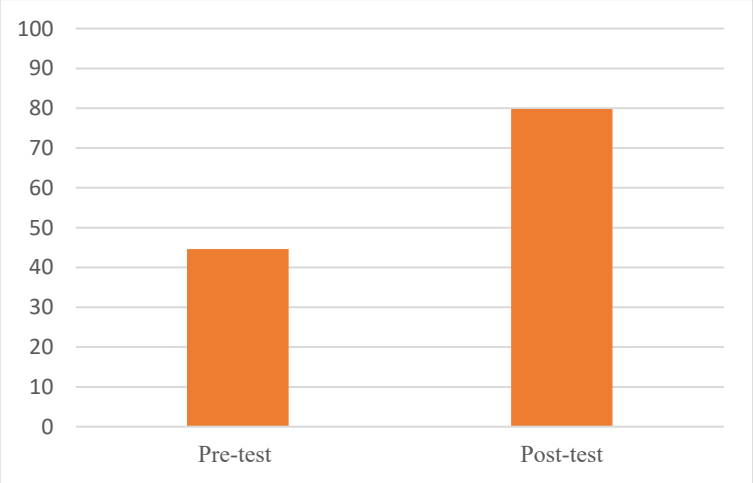
Tabel 1. Results of Pre-test and Post-test

Statistic	Pre-test	Post-test
Number of Students	44	44
Highest Score	84	96
Lowest Score	26	64
Total Score	1962	3510
Mean Score	44.59	79.77

Source: processed data from the researcher

The significant rise in both the lowest and highest scores also suggests that the PBL strategy was effective not only for high achievers but also for lower-performing students. It gave them the opportunity to practice English more frequently and with greater relevance to real-life contexts.

Chart 1. The result of the Pre-test and Post-test



Source: processed data from the researcher

A total of 44 students participated in the study. The pre-test, conducted before the implementation of the PBL strategy, revealed a mean score of 44.59, with the highest score being 84 and the lowest 26. Only 2% of the students met the passing grade (KKTP), indicating a low level of speaking proficiency prior to the treatment.

After the implementation of the PBL strategy, the post-test showed a significant improvement. The average score rose to 79.77, with the highest score being 96 and the lowest 64. A total of 68% of students met or exceeded the passing grade. This increase indicates that students were better able to express their ideas, use appropriate vocabulary, and construct more accurate sentences in spoken English.

Normality Testing

The normality tests using Chi-square showed that both pre-test and post-test scores were normally distributed:

Table 2. The Result of Normality Testing

Pre-test: $X^2 = 5.05 < X^2$ table = 7.815 → Data are normally distributed
Post-test: $X^2 = 6.22 < X^2$ table = 7.815 → Data are normally distributed

Source: processed data from the researcher

This validates the use of parametric statistical tests such as the paired sample t-test. It also indicates that the dataset is reliable and representative of the population.

Paired Sample T-Test

The t-test results showed a t-count of 21.32, which is significantly higher than the critical value of 2.016 at 43 degrees of freedom. This confirms that the

increase in students' speaking scores after the PBL intervention was not due to chance but a direct result of the treatment.

Table 3. The Result of Paired Sample T-Test

Description	Value
Mean Difference	35.18
Standard Deviation	10.96
Standard Error	1.65
t-count	21.32
t-table (df = 43)	2.016

Source: processed data from the researcher

To determine whether the improvement was statistically significant, a paired sample t-test was conducted. The results of the statistical analysis showed a notable improvement in students' speaking scores after the implementation of the Problem-Based Learning (PBL) strategy. The mean pre-test score was 44.59 with a standard deviation (SD) of 14.10, while the mean post-test score increased to 79.77 with a lower standard deviation of 6.79, indicating more consistent student performance after treatment. To determine the significance of this improvement, a paired sample t-test was conducted. The standard deviation of the gain score (SDd) was 10.96, and the standard error of the difference (SED) was calculated as 1.65. The t-count obtained was 21.32, which was far greater than the t-table value of 2.016 at a significance level of 0.05 with 43 degrees of freedom. Since t-count > t-table, it was concluded that the difference between pre-test and post-test scores was statistically significant, confirming the effectiveness of the PBL strategy in improving students' speaking skills. Since the t-count (21.32) was much greater than the t-table (2.016), it was concluded that the improvement in students' speaking skills was statistically significant. Therefore, the alternative hypothesis (Ha) was accepted.

DISCUSSION

The results of this study showed that the implementation of the Problem-Based Learning (PBL) strategy had a significant and positive impact on students' speaking skills. The average score increased from 44.59 in the pre-test to 79.77 in the post-test, and the statistical analysis confirmed the significance of this improvement (t-count = 21.32 > t-table = 2.016). This indicated that students improved in fluency, vocabulary control, pronunciation, and overall confidence in speaking English after participating in PBL-based learning activities.

The improvement in speaking performance was likely due to the fundamental principles of the PBL strategy, which encouraged learners to engage in real-life problem-solving through collaboration and active discussion. As

described by Duch et al. (2001), PBL provided meaningful learning experiences that developed not only cognitive abilities but also communicative competence. In this study, students worked on contextual problems related to asking and giving opinions, which required them to think critically, cooperate with peers, and use English to express their ideas. Through this process, they became more confident and fluent in spoken English.

Besides language improvement, the PBL strategy also supported the development of students' soft skills such as teamwork, critical thinking, and decision-making. These aspects were often neglected in traditional language teaching methods. The results supported Vygotsky's social constructivist theory, which emphasized the role of social interaction in learning. During the treatment, students engaged in peer discussions, shared ideas, and negotiated meaning, all of which contributed to a more active and student-centered learning process.

The findings were in line with previous research. Rizal et al. (2021) reported that PBL significantly enhanced students' fluency and motivation in speaking. Similarly, Mufaidah (2014) found that PBL activities built students' self-confidence and encouraged them to practice speaking more actively. In this study, students' positive responses to the questionnaire further supported those findings. Most students stated that learning through PBL was more enjoyable, interactive, and useful in helping them speak more naturally and expressively.

Furthermore, the reduction in standard deviation from 14.10 in the pre-test to 6.79 in the post-test suggested that students' performance became more consistent after the treatment. This indicated that PBL was not only effective for high-achieving students but also helped lower-performing students improve and catch up with their peers. The equal opportunity to participate in group work and class discussions appeared to benefit all students regardless of their initial ability level.

Despite the positive results, there were still some limitations in the implementation of the PBL strategy. It required more preparation from the teacher, more classroom management skills, and more time to facilitate student interaction. A few students continued to face challenges related to language anxiety or limited vocabulary, which sometimes affected their participation. Future studies might explore how to better support such students during PBL sessions and how the strategy can be adapted to improve other language skills such as listening, reading, and writing.

In conclusion, the discussion showed that the PBL strategy was effective in improving students' speaking skills and supported a broader range of educational benefits. It offered an alternative to traditional approaches by promoting active, collaborative, and meaningful language learning in an EFL classroom context.

CONCLUSION

This study investigated the effectiveness of the Problem-Based Learning (PBL) strategy in enhancing students' speaking skills at MAN 1 Lubuklinggau. The findings revealed a significant improvement in students' speaking performance after being taught using the PBL strategy. The average speaking score increased from 44.59 in the pre-test to 79.77 in the post-test, and the paired sample t-test confirmed that the difference was statistically significant. The implementation of the PBL strategy not only improved students' fluency, vocabulary use, and pronunciation but also enhanced their critical thinking, confidence, and motivation to speak English. Moreover, student responses gathered through a questionnaire indicated positive perceptions toward the use of PBL in the classroom. In conclusion, the PBL strategy is an effective method for improving speaking skills in EFL contexts. It promotes student-centered learning, encourages meaningful communication, and provides learners with opportunities to use English in real-life situations. Teachers are encouraged to integrate this strategy into their speaking lessons to foster more interactive and effective learning experiences.

REFERRENCES

Afrizal, M. (2015). A classroom action research: Improving speaking skills through information gap activities. *English Education Journal*, *6*(3), 342-355.

Baden, M. S., & Major, C. H. (2004). *Foundations of Problem-Based-Learning*. New York, USA: University Press

Bashir, M., Azeem, M., & Dogar, A. H. (2011). Factor effecting students' English speaking skills. *British journal of arts and social sciences*, *2*(1), 34-50.

Brown, H. D. (2004). Language Assessment Principle and Classroom Practice. New York: Pearson Education.

_____. (2007). *Principles of Language Learning and Teaching*. Fifth Edition. New York: Pearson Education.

Duch, B., Gron, S., & Allen, D. (2001). " The Power of Problem-Based Learning" Sterling, VA: Stylus Publishing.

Episiasi, E., Mujiyanto, J., Suwandi, & Hartono, R. (2023). Exploring the Effects of Metacognitive Strategy on EFL Students' Listening Performance in Indonesia. New Educational Review, 72(2023), 176–187. https://doi.org/10.15804/tner.23.72.2.13

Fahmi, R., Muslem, A., & Usman, B. (2021). The use of Problem Based Learning to improve students' speaking ability. English Education Journal, 12(2), 260-281.

Fraenkel, J.R.,Wallen,N.E..,Hyun.H.H. (2023). How to design &evaluate research research (11thed). Unitated State of America: SAGE Publication

Harmer, J. (1998). How to Teach English an Intoduction to Practice of Language. London: Longman.

Mahtawarmi, Y. (2018). Improving Students' Speaking skill by Using Problem Based learning (PBL). Model (Doctoral dissertation, UIN Ar-Raniry Banda Aceh).

Mufaidah, U. (2014). Problem Based Learning: Enhancing Students' Speaking Skill on the Second Student of SMP N 1 Atap Bandung in the Academic Year 2013/2014. Salatiga: Uzin Mufaidah. Unpublished Research.

Musdalifah, M., Asri, A. K., & Jannah, R. (2024). Applying Problem-Based Classroom Learning to Assist Students in increase Students' Speaking Skill. JOEY: Journal of English Ibrahimy, 3(2), 40-52.

Ning, H., & Hornby, G. (2010). The Effectiveness of Cooperative Learning in Teaching English to Chinese Tertiary Learners. Effective Education, 2(2), 99–116.

Nilson, L. B. (2010). *Teaching at its best: A Research-based resource for college instructors (2nd ed)*. San Francisco, CA: Jossey-Bass.

Nunan, D. (2003). Practical English language teaching. New York: McGraw- Hill.

Rao, P. S. (2019). The Importance of Speaking Skills in English Classrooms. *Alford Council of International English & Literature Journal* (ACIELJ), 2(2), 6-18.

Richard,J.C (2008). Teaching listening and speaking from theory to practice. New York,NY: Cambridge university press.

Rohim, A. (2014). Improving students' speaking skill through problem based learning (PBL) strategy. JP3, 3(8), 1-11.

Tan, O. S., & Tee, M. Y. (2003). *Problem Based Learning. Using Problems to Power Learning in the 21st Century*, Singapura: Cengage Learning.