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Research Article

Improving the Students' Speaking Ability Through Problem-Based Learning at SMK Negeri 2 Malinau

(A Classroom Action Research)

Akbar Ginandar [1]*, Dwiyani Pratiwi[2]

[1] Universitas Negeri Yogyakarta, Indonesia: akbarginandar.2022@student.uny.ac.id
[2] Universitas Negeri Yogyakarta, Indonesia: dwiyani_pratiwi@uny.ac.id
* Corresponding Author: Akbar Ginandar

Abstract: This study aims to improve the English speaking skills of students in class XI DPIB B at SMK Negeri 2 Malinau through the application of the Problem-Based Learning (PBL) model. The background of this research is the low speaking ability of students, which is characterized by limited vocabulary, lack of confidence, and low participation during English learning activities. The research employed Classroom Action Research (CAR) using the Kemmis and McTaggart model, which was conducted in two cycles consisting of planning, action, observation, and reflection stages. The research subjects were 32 students of class XI DPIB B. Data were collected through speaking performance tests and observations of students' learning behavior during the implementation of the PBL model. The collected data were analyzed using quantitative and qualitative techniques. The results showed a significant improvement in students' speaking skills, as indicated by the increase in the average score from 64.00 in the pre-test to 68.75 in cycle I and 76.00 in cycle II. Furthermore, the percentage of learning completeness increased from 25% in the pre-test to 81.25% at the end of cycle II. Observational data also revealed positive changes in students' learning behavior, including higher participation, increased motivation, and greater confidence in speaking English. These findings demonstrate that the Problem-Based Learning model is effective in improving students' English speaking skills and learning engagement.

Keywords: Engagement; Learning Behavior; PBL; Problem-Based Learning; Speaking.

1. Introduction

English is an essential skill in global education, especially speaking skills, which play an important role in developing communication skills, fluency, and confidence in students (Ani & Sinaga, 2021; Rahayu et al., 2022). However, in the practice of English language learning in secondary schools, speaking skills are still one of the most difficult competencies for students to master.

Pre-observation results in class XI DPIB B at SMK Negeri 2 Malinau show that students' speaking skills are still in the moderate to low category. Based on assessments using an analytical rubric (Karol Milena Lasso Rosero & Program, 2019), 53.1% of students were at the Satisfactory level and no students reached the Excellent category. In addition, the questionnaire showed that 75% of students considered the learning topics to be irrelevant to their daily lives, which had an impact on their low motivation to learn. This problem is exacerbated by the dominance of teacher-centered learning patterns, which severely limit students' opportunities to practice authentic speaking. To overcome this problem, the Problem-Based Learning (PBL) model is considered an effective approach because it integrates real-world problems, collaborative work, and active communication into the learning process (Savery, 2015; Kassem, 2018; Silviana et al., 2021; Fahmi et al., 2021; Sriwarapong et al., 2025).

This study is novel because it implements PBL in the context of the Merdeka Curriculum in vocational education, specifically in the DPIB program at SMK Negeri 2 Malinau, and

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examines the simultaneous improvement of students' speaking skills and changes in their learning behavior. The results of this study are expected to contribute theoretically and practically to the development of English language learning in vocational education.

English is an essential skill in the era of globalization, especially speaking skills, which not only serve as a means of communication but also as an indicator of language proficiency, critical thinking, and building students' confidence (Ani & Sinaga, 2021; Rahayu et al., 2022). This speaking skill is an important foundation for students in facing the challenges of vocational education that demands professional communication skills, especially in the fields of industry and technology. However, in reality, many students at the secondary level experience difficulties in mastering this skill, both in terms of fluency, pronunciation, and the selection of appropriate vocabulary in the context of real communication. This condition indicates a gap between the academic abilities taught in school and the practical communication needs in the world of work.

Pre-observation results in class XI DPIB B at SMK Negeri 2 Malinau show that students' speaking skills are still in the moderate to low category. Based on assessments using an analytical rubric (Karol Milena Lasso Rosero & Program, 2019), 53.1% of students are at the Satisfactory level, while no students have reached the Excellent category. The questionnaire data also shows that 75% of students consider the learning topics to be irrelevant to their daily lives, which directly impacts their low motivation and active participation in class. This indicates that the current teaching methods are not sufficiently supportive of optimal speaking skill development.

One of the factors contributing to students' poor speaking skills is the dominance of teacher-centered learning, which severely limits students' opportunities to practice speaking authentically. This conventional learning model tends to emphasize vocabulary and grammar memorization, without providing space for students to develop their communication skills naturally. As a result, students lack confidence when asked to speak in front of the class or in situations that require real interaction. This problem is even more relevant when linked to the demands of the Merdeka Curriculum, which encourages active, creative, and contextual learning.

To address these issues, the Problem-Based Learning (PBL) model is considered an effective approach because it integrates real-world problems, collaborative work, and active communication into the learning process (Savery, 2015; Kassem, 2018; Silviana et al., 2021; Fahmi et al., 2021; Sriwarapong et al., 2025). PBL enables students to learn through solving problems that are relevant to everyday life, thereby honing their speaking skills in an authentic way. In addition, the application of PBL encourages students to think critically, take initiative, and work together in groups, making the learning process more meaningful and fostering intrinsic motivation.

This study is novel in that it implements PBL in the context of the Merdeka Curriculum in vocational education, specifically in the DPIB program at SMK Negeri 2 Malinau, and assesses simultaneous improvements in students' speaking skills and changes in learning behavior. It is hoped that the results of this study will not only contribute theoretically to the development of English learning models, but also provide practical implications for teachers in designing more contextual, interesting learning that can tangibly improve students' communication skills. Thus, this study has the potential to become a reference for the development of English learning strategies that are relevant to vocational needs and the demands of the 21st century.

2. Preliminaries or Related Work or Literature Review

The Merdeka Curriculum

The Merdeka Curriculum emphasizes flexibility in learning and strengthening essential competencies through a deep learning approach that encourages meaningful, metacognitive, and enjoyable learning (Anwar, 2021; Lie, 2022; Gumilar et al., 2023; Hasanah et al., 2025). This approach aims to equip students with critical thinking skills and prepare them to face global challenges.

In speaking learning, a technology-integrated deep learning approach has been proven effective in improving pronunciation, fluency, and accuracy through the use of automatic feedback and independent practice (Tian et al., 2023; Joko Purwanto et al., 2025). The KKTP is determined through an analysis of learning outcomes and MGMP agreements in accordance with the Merdeka Curriculum policy (Lie, 2022), and at SMK Negeri 2 Malinau, a score range of 71–85 is set as the standard for learning completeness.

Problem-Based Learning Method

Problem-Based Learning (PBL) is a student-centered learning model that uses authentic problems as a trigger for learning to develop knowledge, problem solving, independence, and collaboration (Lohman & Finkelstein, 2000; Nilson, 2010; Baden & Major, 2004; Ansarian, 2018; Moallem et al., 2019; Moust et al., 2021). The goal of PBL is to increase student active participation and critical thinking skills through cooperative learning, with the teacher acting as a facilitator.

PBL has key characteristics, namely unstructured real-world problems, independent learning, small group work, interdisciplinary integration, reflection, and continuous evaluation (Oon-Seng & Tan, 2003; Poonpon, 2011). The stages of PBL include problem orientation, student organization, investigation, presentation of results, and reflection (Nurhayati, 2004). PBL has been shown to increase student motivation, understanding, and engagement, although it requires sufficient time and resources and poses challenges in assessment (Nilson, 2010).

The Concept of Speaking Skills

Speaking skills are a key component of language learning, as they are a measure of learners' progress in oral communication (Brown & Gullberg, 2008; Bailey, 2005; Ork et al., 2024). Speaking is understood as the active use of language to convey meaning, while "skill" refers to the ability to perform activities proficiently (Nunan, 1996; Green, 2011). Thus, speaking skills are an individual's ability to express ideas orally and effectively in a communicative context.

Types of speaking include imitative, intensive, responsive, interactive, and extensive/monologue (H. D. Brown, 2004). The assessment of speaking skills includes the components of pronunciation, vocabulary, grammar, fluency, and comprehension (Wipf, 1987; John, 1978; Nunan, 1996; Lambardo, 1994; Manser et al., 1991), which collectively reflect the communicative competence of learners in real situations.

Conceptual Framework

This conceptual framework states that the application of Problem-Based Learning (PBL) in English language teaching provides more authentic and contextually meaningful opportunities for learners to use the target language in situations that closely resemble real-world communication.

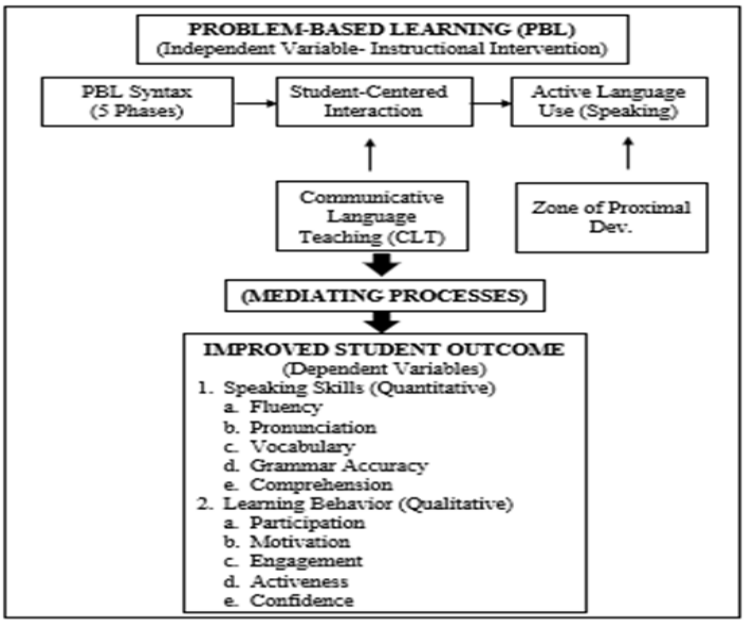

Figure 1. Conceptual Framework of Problem-Based Learning (PBL).

3. Materials and Method

Research Design

This study used a Classroom Action Research (CAR) design based on Kemmis and McTaggart's spiral model, which consists of four repetitive stages: planning, action, observation, and reflection (Kemmis & McTaggart, 1988; Altrichter et al., 2002). CAR is

understood as action research that aims to improve the quality of the learning process and student learning outcomes directly and contextually (Carr & Kemmis, 1986; Mulyasa, 2011; Wiyono, 2007). This model was chosen because it is reflective, collaborative, and oriented towards improving learning practices, particularly in improving speaking skills through the application of Problem-Based Learning (Suharsimi Arikunto, 2009).

The CAR stages include: (1) Planning, preparing lesson plans and learning instruments; (2) Action, implementing learning strategies; (3) Observation, monitoring learning activities through observation sheets and field notes; and (4) Reflection, evaluating the results of actions for improvement in the next cycle (Kemmis & McTaggart, 1988; Altrichter et al., 2002). Through this cycle, CAR enables teacher-researchers to systematically diagnose classroom problems and intervene directly to improve the quality of learning (Carr & Kemmis, 1986; Suharsimi Arikunto, 2009).

Research Period

This research was conducted on September 9–25, 2025, during the odd semester of the 2025/2026 academic year. Cycle I was conducted on September 9–11, 2025, and Cycle II on September 23–25, 2025.

Research Location

The research was conducted at SMK Negeri 2 Malinau, located at Jalan Ahmad Yani, RT 12, Malinau Kota District, Malinau Regency, North Kalimantan Province. This school has 630 students spread across 21 classes.

Research Subjects

The research subjects were determined using purposive sampling (Sugiyono, 2017; Suharsimi Arikunto, 2009). Class XI DPIB B was selected based on preliminary data showing low speaking skills and passive learning behavior (Creswell, 2012). This class consisted of 32 students (14 male and 18 female) and was considered most relevant for the application of Problem-Based Learning intervention (Miles & Huberman, 2014).

Research Procedure

The procedures applied in this study included the stages of planning, action, observation, and reflection. The research procedures adapted from Nugroho et al. (2025) are described as follows:

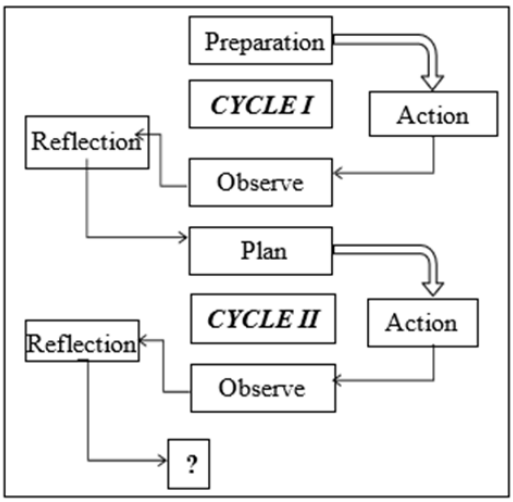

Figure 2. Action Research Model.

Data Collection Techniques and Instruments

This study used four data collection techniques, namely observation, tests, interviews, and documentation (Creswell, 2012; Sugiyono, 2017). Observations were conducted at each meeting using observation sheets to assess the implementation of PBL and student development based on indicators of participation, motivation, involvement, activity, and self-confidence (Arikunto, 2013). Speaking tests (pre-tests and post-tests) were used to measure improvements in students' speaking skills (Brown, 2004; Hughes, 2003). Semi-structured interviews were conducted to obtain additional information about the experiences of students and teachers during PBL learning (Creswell, 2012). Documentation in the form of lesson plans, photos, test results, and activity recordings were used as supporting data (Sugiyono, 2017).

The research instruments included: observation sheets, speaking test instruments, semi-structured interview guidelines, and supporting documents. Observation sheets were used to

assess student activities during the implementation of PBL, speaking tests to assess oral skills, interviews to explore student responses, and documentation to reinforce the findings.

Success Indicators

The success indicators in this action research are determined based on the learning process and outcomes, including quantitative and qualitative indicators (Kemmis & McTaggart, 1988; Arikunto, 2013).

Research Outcome Success Indicators (Quantitative)

Quantitative success is measured through an increase in students' speaking scores, with the following criteria:

1. The average speaking score reaches the school's KKTP (71–85);
2. At least 80% of students achieve the KKTP in the aspects of fluency, vocabulary, grammatical accuracy, pronunciation, and comprehension (Brown, 2004; Hughes, 2003);
3. There is a significant increase between the pre-test and post-test scores, which is tested using a t-test (Creswell, 2012).

Indicators of Learning Process Success (Qualitative)

Qualitative indicators are used to observe improvements in student learning behavior in class XI DPIB B at SMK Negeri 2 Malinau. Success is achieved if at least 80% of students show positive development (Sugiyono, 2017) in the following aspects:

1. Participation; Students actively participate in discussions, group work, and respond to teachers' questions.
2. Motivation; Students show interest, perseverance, and a positive attitude in learning English.
3. Engagement; Students are mentally and emotionally involved in problem analysis and PBL activities.
4. Activity; Students take the initiative to ask questions, answer, give opinions, and actively participate in group presentations.
5. Confidence in Speaking; Students are able to speak more fluently, confidently, and with minimal hesitation in English communication (Brown, 2004).

Data Analysis Techniques

Data analysis was conducted using quantitative and qualitative approaches (Creswell, 2012; Sugiyono, 2017). Quantitative data was analyzed using descriptive statistics to see the improvement in students' speaking skills, while qualitative data was analyzed through data reduction, data presentation, and conclusion drawing (Miles & Huberman, 1994).

4. Results and Discussion

This study presents the development of students' speaking skills through an analysis of pre-tests, cycle I, and cycle II. The main objective is to measure the achievement of quantitative success indicators after the implementation of Problem-Based Learning (PBL) in class XI DPIB B at SMK Negeri 2 Malinau in the 2025/2026 academic year.

Pre-test Results

The pre-test was conducted on September 8, 2025, to assess students' initial abilities in five speaking components: pronunciation, fluency, vocabulary, grammar, and comprehension (Brown, 2004; Hughes, 2003). In general, students still faced obstacles in pronunciation, fluency, and language structure usage. The vocabulary used was still limited and repetitive, while some students had difficulty understanding the teacher's questions.

Table 1. The Students' Pre-test Result.

Valid N	N	Min	Max	Sum	Mean
Pre-Test Score	32	40	85	2050	64

An average score of 64 indicates that students' speaking skills are adequate, but still below the KKTP (71–85).

Table 2. The Students' Pre-test Frequency of Students' Scores at Pre-test.

No.	Score	Frequency	Percentage (%)	Criteria
1.	<71	21	66%	Incomplete
2.	≥ 71	11	34%	Complete
	Total		100%	

A total of 21 students (66%) did not reach the KKTP, while only 11 students (34%) reached the mastery standard. This shows the need for more effective and learner-centered learning interventions, as suggested in the PBL model (Hmelo-Silver, 2004; Savery, 2006).

Cycle I

Cycle I was conducted on September 9–11, 2025, through the stages of Planning, Implementation, Observation, and Reflection (Kemmis & McTaggart, 1988), with the material "Asking and Giving Opinions" and the application of the Problem-Based Learning (PBL) model (Hmelo-Silver, 2004; Savery, 2006). Learning activities included showing a problem-triggering video, group discussions, investigations, dialogue writing, role-play, and a speaking post-test. The observation results showed an initial improvement, but it didn't reach the 80% target.

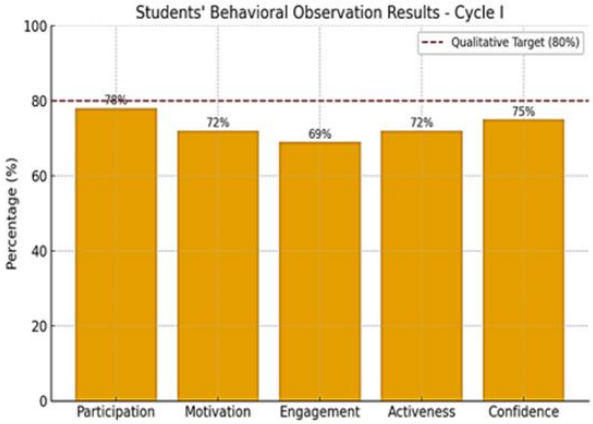

Figure 3. Students' behavioral observation results-cycle I.

The results of the post-test of students' speaking skills were assessed based on the components proposed by Brown (2004).

Table 3. Mean score and achievement percentage of speaking in cycle I.

No	Aspect	Mean Score	Achievement Percentage	Description
1.	Fluency	2.66	66.4%	Students were able to speak more smoothly, although several pauses and repetitions were still noticeable.
2.	Pronunciation	2.56	64.1%	Students' pronunciation was fairly clear; however, some errors in stress and intonation persisted.
3.	Vocabulary	3.03	75.8%	Students demonstrated an improved range of vocabulary, being able to use more varied and accurate expressions.
4.	Grammar	2.59	64.8%	Students began to apply grammatical rules more consistently, though minor inaccuracies remained frequent.
5.	Comprehension	2.91	72.8%	Students generally understood the questions and were able to provide appropriate and relevant responses.

The average post-test score for Cycle I was 68.75, with 31.25% of students completing the KKTP, indicating an improvement in speaking skills although the target had not yet been achieved. The standard deviation decreased from 2.40 to 1.93, indicating more consistent learning outcomes. Interviews revealed high motivation, but student activity and confidence still needed to be improved. PBL began to increase interaction, but Cycle II requires more intensive scaffolding reinforcement, group roles, and language practice.

Cycle II

Cycle II research was conducted on September 23–25, 2025, with the stages of Planning, Action, Observation, and Reflection (Sugiyono, 2017) to improve students' speaking skills through Problem-Based Learning (PBL). Based on the reflections from Cycle I, the material focused on "Asking and Giving Opinions" with the theme of cell phone use and cyberbullying, supplemented with speaking frames, vocabulary, pair exercises, and real-life problem scenarios to achieve a target of ≥80% (KKTP). The action was carried out over

three meetings: introduction to the problem through videos and discussions, development of dialogues and group presentations, and individual post-tests and interviews. Observations showed an improvement in students' speaking quality in the five aspects observed.

Table 4. Quantitative summary of qualitative results.

Aspect	Cycle I (% of students rated 3–4)	Cycle II (% of students rated 3–4)	Improvement
Participation	78% (25/32)	88% (28/32)	+10%
Motivation	72% (23/32)	85% (27/32)	+13%
Engagement	69% (22/32)	84% (27/32)	+15%
Activeness	72% (23/32)	82% (26/32)	+10%
Confidence in Speaking English	75% (24/32)	83% (27/32)	+8%

Significant improvement was seen compared to Cycle I, where engagement was only 69%. Students became more active, motivated, and confident due to the use of relevant topics and structured roles in groups (Barrows, 1996; Hmelo-Silver, 2004).

Table 5. Elaboration on the quantitative indicators of success.

Test Stage	Total Score	Mean Score (100)	Students ≥71 (KKTP)	% Meeting KKTP	Interpretation
Pre-Test	2050	64.00	8/32	25%	Below KKTP, the baseline speaking level is low
Cycle I Post-Test	2200	68.75	10/32	31.25%	Improvement observed, but below target
Cycle II Post-Test	2430	76.00	26/32	81.25%	KKTP achieved clear progress and mastery

The average post-test score increased from 68.75 in Cycle I to 76.00 in Cycle II, with 81.25% of students achieving classical mastery (KKTP ≥71), indicating the achievement of learning targets (Sugiyono, 2017). The decrease in standard deviation from 2.40 (pre-test) to 1.93 (Cycle I) and 1.45 (Cycle II) indicates a consistent improvement in students' speaking skills.

Table 6. Mean score and achievement percentage of speaking in cycle I.

Aspect	Pre-Test Mean (1–4)	Cycle I Mean (1–4)	Cycle II Mean (1–4)	Improvement Trend
Fluency	2.40 (60%)	2.66 (66.4%)	3.13 (78.3%)	↑ +18.3%
Pronunciation	2.35 (58.8%)	2.56 (64.1%)	3.06 (76.6%)	↑ +17.8%
Vocabulary	2.78 (69.5%)	3.03 (75.8%)	3.28 (82.1%)	↑ +12.6%
Grammar	2.32 (58.0%)	2.59 (64.8%)	3.10 (77.5%)	↑ +19.5%
Comprehension	2.65 (66.3%)	2.91 (72.8%)	3.27 (81.8%)	↑ +15.5%

Significant improvements were observed in the areas of grammar (+19.5%), fluency (+18.3%), and pronunciation (+17.8%) (Brown, 2001; Nation & Newton, 2009). A paired-samples t-test analysis showed a significant increase ($t=9.54$; $df=31$; $p<0.001$), proving the effectiveness of PBL intervention (Cohen, 1988). Interviews showed that students were more active, motivated, and confident, appreciating relevant topics, structured group roles, vocabulary scaffolding, and teacher guidance, which supported speaking skills and social awareness (Johnson & Johnson, 2009; Savery, 2006). In conclusion, the implementation of PBL in Cycle II effectively improved speaking skills significantly, both quantitatively and qualitatively, with improved teaching strategies and language scaffolding supporting the achievement of KKTP targets and student communicative competence (Hmelo-Silver, 2004; Sugiyono, 2017; Barrows, 1996).

Improving Students' Speaking Skills

The application of Problem-Based Learning (PBL) has been proven to improve students' speaking skills through contextual and collaborative communication tasks (Barrows, 1996; Hmelo-Silver, 2004). The average score increased from 64.00 on the Pre-Test to 68.75 in Cycle I and 76.00 in Cycle II, with the percentage of students achieving KKTP increasing

from 25 percent to 31.25 percent and 81.25 percent (Sugiyono, 2017). All aspects of speaking, namely fluency, pronunciation, vocabulary, grammar, and comprehension, showed improvement, especially after the second cycle, which used the authentic topic of cyberbullying and structured role-playing (Johnson and Johnson, 2009; MacIntyre et al., 1998). PBL encourages active participation, motivation, and student confidence, while developing collaborative skills and social responsibility (Richards, 2006). These findings confirm that PBL is effective in improving speaking skills and student engagement in EFL learning (Barrows, 1996; Sugiyono, 2017).

Improvement in Student Behavior in English Language Learning

The application of Problem-Based Learning (PBL) has been proven to improve student behavior in English language learning, including participation, motivation, engagement, activity, confidence in speaking, and reflection (Barrows, 1996; Hmelo-Silver, 2004; Johnson & Johnson, 2009). Observation and interview data showed significant improvement from Cycle I to Cycle II, especially after the application of authentic topics (cyberbullying), clear role division, and language scaffolding (Richards, 2006; MacIntyre et al., 1998; Sugiyono, 2017).

Table 7. Relationship Between Cycles (Progress Evaluation).

Dimension	Cycle I (Initial Implementation)	Cycle II (Revised Implementation)	Outcome
Teaching Focus	Introducing PBL	Refining with scaffolding & roles	Improved structure and clarity
Student Behavior	Partially active, mixed motivation	Consistently active and motivated	High engagement sustained
Topic Relevance	General issue (school discipline)	Real issue (cyberbullying)	Stronger emotional connection
Student Interaction	Uneven participation	Balanced contribution per role	Collaborative atmosphere
Learning Environment	Teacher-centered tendency	Student-centered dialogue	Self-regulated participation
Achievement	Below 80% target	Above 80% in all indicators	Qualitative success achieved

Hasil ini menunjukkan bahwa PBL tidak hanya meningkatkan kemampuan berbicara bahasa Inggris, tetapi juga membentuk perilaku positif seperti tanggung jawab, kolaborasi, kepercayaan diri, dan keterlibatan aktif. Pembelajaran yang kontekstual, interaktif, dan berpusat pada siswa mendorong transformasi perilaku sekaligus kemampuan komunikatif yang lebih baik (Barrows, 1996; Hmelo-Silver, 2004; Johnson & Johnson, 2009; Sugiyono, 2017).

The present study sought to investigate the enhancement of students' speaking ability through the implementation of Problem-Based Learning (PBL) in Class XI DPIB B at SMK Negeri 2 Malinau during the 2025/2026 academic year. The pre-test results revealed that students faced considerable challenges in pronunciation, fluency, vocabulary, grammar, and comprehension (Brown, 2004; Hughes, 2003). With an average score of 64, the majority of students (66%) failed to reach the Minimum Competency Achievement Criteria (KKTP) of 71, highlighting a pressing need for a learner-centered intervention that could effectively stimulate speaking proficiency. The pre-test data also suggested that students struggled with authentic comprehension and interactive verbal production, underlining the limitations of conventional, teacher-centered instructional methods.

Cycle I was designed to address these deficiencies through structured PBL activities conducted over three meetings. The instructional approach involved the presentation of problem-triggering videos, collaborative group discussions, dialogue composition, role-play, and post-test evaluations, focusing on the theme of "Asking and Giving Opinions" (Hmelo-Silver, 2004; Savery, 2006). Post-test results indicated incremental improvement, particularly in vocabulary and comprehension, with the mean score rising to 68.75. However, only 31.25% of students met the KKTP, suggesting that while PBL fostered initial engagement and increased motivation, further refinement and scaffolding were necessary to achieve optimal learning outcomes. Observations during this cycle revealed that student participation was uneven, and confidence in oral expression remained moderate.

Reflective analysis from Cycle I informed the design of Cycle II, emphasizing authentic, socially relevant topics such as cyberbullying and mobile phone usage, alongside structured roles, vocabulary scaffolding, and pair-based exercises. Over three sessions, students engaged in problem exploration, dialogue construction, and both group and individual post-tests. The integration of authentic scenarios created stronger emotional and cognitive engagement, prompting more natural and confident speech production (Johnson & Johnson, 2009; MacIntyre et al., 1998). Observation and interview data demonstrated a notable increase in motivation, active participation, and collaborative interaction, reflecting a substantive transformation in students' learning behavior.

Quantitative data from Cycle II post-tests corroborated these observations, showing substantial improvement across all five speaking components. Fluency increased by 18.3%, pronunciation by 17.8%, grammar by 19.5%, vocabulary by 12.6%, and comprehension by 15.5%, with 81.25% of students achieving the KKTP, exceeding the 80% target (Sugiyono, 2017). Statistical analysis using paired-samples t-test confirmed the significance of these gains ($t = 9.54$; $df = 31$; $p < 0.001$), providing empirical evidence of the effectiveness of the PBL intervention in fostering measurable improvement in oral language skills. This outcome demonstrates that PBL can transform initial low baseline competencies into substantial mastery when appropriately contextualized and scaffolded.

The improvement in student behavior was equally noteworthy. Observations and interviews indicated enhanced participation, motivation, engagement, and confidence, with students demonstrating greater responsibility and accountability during collaborative tasks (Barrows, 1996; Hmelo-Silver, 2004). The deliberate assignment of roles within groups and the incorporation of structured speaking frames created an inclusive and balanced environment, enabling all students to contribute meaningfully. Furthermore, the relevance of topics to students' real-life experiences facilitated deeper cognitive involvement and emotional investment, which reinforced intrinsic motivation and the practical application of language skills.

The study also revealed a positive correlation between instructional design and behavioral transformation. While Cycle I highlighted partial engagement and uneven motivation, Cycle II demonstrated consistent, self-regulated participation across all dimensions, including interaction, discussion, and problem-solving. The PBL framework promoted not only linguistic competence but also critical thinking, social collaboration, and reflective learning, highlighting its dual impact on communicative proficiency and learner behavior (Richards, 2006; Savery, 2006). Students exhibited greater awareness of their learning processes and a stronger inclination toward collaborative problem-solving, reflecting the comprehensive benefits of well-implemented PBL in a vocational context.

In conclusion, the application of PBL effectively enhanced both students' speaking ability and positive learning behaviors. The intervention produced significant gains in pronunciation, fluency, vocabulary, grammar, and comprehension, alongside measurable improvements in motivation, engagement, and confidence. The study confirms that PBL, when coupled with authentic topics, structured scaffolding, and collaborative strategies, serves as a highly effective pedagogical approach for developing communicative competence and fostering a student-centered learning environment. These findings contribute to the theoretical understanding of PBL in EFL education and offer practical guidance for educators seeking to improve speaking proficiency in vocational secondary education contexts.

5. Conclusion

The results of this study indicate that the implementation of Problem-Based Learning (PBL) is effective in improving the speaking skills and learning behavior of grade XI students at SMK Negeri 2 Malinau. Quantitatively, the average speaking score of students increased from 64 on the Pre-Test to 68.75 in Cycle I, and reached 76 in Cycle II, with the percentage of students who achieved KKTP increasing from 25% to 81.25%. Qualitatively, PBL encourages the development of positive behaviors, including active participation, motivation, engagement, enthusiasm, self-confidence, and reflective skills. The application of PBL through relevant and authentic topics, group collaboration, and clear role sharing created a student-centered learning environment and facilitated active communication. Thus, PBL not only improved linguistic abilities but also fostered a proactive, confident, and critical learning attitude, preparing students to use English effectively in academic and real-life contexts.

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