Problem Based Learning to Improve Students' Grammar Competence at Second Semester Students of English Education Borneo University Tarakan

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ABSTRACT

Grammar proficiency continues to be a significant difficulty for students in higher education, particularly in English as a Foreign Language (EFL) settings. This burning issue calls for innovative teaching strategies that actively engage learners in language use. The purpose of this study was to analyze the implementation of problem-based learning (PBL) in grammar instruction and evaluate its effectiveness in improving students' grammatical competency. This research employed a collaborative classroom action research design. It was conducted over two cycles to observe the changes in students' grammar performance through iterative interventions. The participants were 32 second-semester students from the English Department. The instruments used to collect data were observation notes and grammar tests designed to measure changes in students' grammar performance. The data were analyzed by comparing the results from two research cycles, focusing on the average scores and the proportion of students achieving the minimum mastery criteria. The results showed a significant improvement: the average student score increased from 62.5 in the first cycle to 72.4 in the second, and the percentage of students who met the minimal mastery criteria rose from 42.3% to 78%. In conclusion, problem-based learning positively impacted students' grammar proficiency. The implication of this result suggests that PBL not only enhances students' grammatical competence but also improves their speaking and writing abilities by encouraging active communication, fostering motivation, and engaging them in meaningful problem-solving tasks.

I. Introduction

Grammar is a fundamental component of language that plays a crucial role in the development of all four language skills—listening, speaking, reading, and writing. For English education students at the university level, mastering grammar is essential for achieving overall language proficiency. As [1] and [2] emphasize, a solid understanding of grammar enables learners to construct accurate and meaningful sentences, making it indispensable in foreign language acquisition.

However, the reality in many university classrooms tells a different story. At the Teacher Training and Educational Faculty of Borneo University Tarakan, many second-semester students continue to struggle with grammatical errors. These difficulties persist despite grammar being a required subject in the curriculum. A key contributing factor to this issue is the teaching method used. Traditional grammar instruction, which often emphasizes rule memorization and passive learning, tends to disengage students, reducing their motivation and the practical application of grammar in real contexts [3]

The challenge of learning grammar is widely acknowledged, and this is reflected in the struggled of numerous students enrolled in the second semester of English department at the Teacher Training and Educational Faculty of Borneo University Tarakan, who still contend with grammar errors. When teaching grammar, the method used becomes critical. [3], argues older tradition of language teaching saw

knowledge of grammar or grammar competence as the key to successful language use and learning. The traditional method bores students out of learning grammar. Grammar rules, on the other hand, guide everyone to use the language correctly so that they can speak. it can be stated that if students master grammar, they will be proficient in all language skills. Problem-Based Learning (PBL) is a teaching method in which students become centred learners and the teacher act as a facilitator. According to [4], PBL is similar to a student's-centred method in that students must solve real-world problems. To address this challenge, innovative approaches such as Problem-Based Learning (PBL) have been introduced. PBL shifts the focus from teacher-centered instruction to student-centered learning. In this method, students work collaboratively to solve real-life problems, while the teacher acts as a facilitator. Research by [4], [5] and [6] underscores that PBL encourages active learning, critical thinking, teamwork, and problem-solving skills essential for academic and professional success.

Several researchers have conducted previous studies, presenting data that has become evidence of PBL's success in improving students' abilities. In their study, Problem-Based Learning in the English Language Classroom, [7] discovered that the post writing test of students taught using the PBL method improved, with the support and argument of their essay becoming larger than before. The next previous study, [8] in their research entitle "Improving English Writing: A case Problem Based Learning" found that PBL was more effective than conventional lecture method to improve secondary level students, writing skill.

Problem-based learning is a student-centered teaching approach where the teacher act as a facilitator. [4] defines PBL as a method in which learners take responsibility for tackling issues related to their subjects. Similarly, [5] characterized PBL as an inventive approach that encourages students to work in small groups to solve learning problems before they tackle independent study. [6] argues that in PBL, learners engage in collaborative work in analyzing complex problems as well as independent work in resuming problem-solving.

According to [9] project-based learning is an instructional technique that promotes personal interest, motivation, and competency development. It encourages students to be more active, creative, and imaginative in their learning journey while also accepting responsibility for their own learning process. Lecturer use PBL to present students with actual, real-world problems or challenges that need critical thinking, problem-solving abilities, and cooperation to discover meaningful solutions. Furthermore, PBL cultivates a learner-centred atmosphere that promotes active involvement, independent thinking, and self-directed learning. Students become active participants in their own education, taking responsibility for their learning process and acquiring lifetime learning abilities that extend beyond the classroom.

Instead of being the major source of knowledge, the lecturer serves as a facilitator, leading and assisting students as they learn. Students actively cooperate in groups, fostering an equal environment among classmates. [10] emphasize numerous important aspects of the PBL technique. First, the lecturer serves as a supporter and mediator, aiding pupils in creating their own materials. Next, lecturer is open to constructive criticism from students and tailor their delivery techniques to meet their requirements. Students are encouraged to take an active role in their learning, with authority over their learning content and techniques. They give ideas, comments, and critiques while actively participating in the design and development of educational products. Furthermore, students create their own learning resources, establish expectations, assess their own performance, collaborate on projects, and track their own learning progress. Problem-based learning attempts to provide learners with the skills necessary to navigate real-life situations and assume adult roles in problem-solving [11].

Despite the theoretical and practical benefits of PBL, its implementation in grammar instruction remains limited, and there is insufficient empirical evidence about its effectiveness in improving grammar competency among EFL university students, particularly in the context of Borneo University Tarakan. This leads to the central research problem: How effective is Problem-Based Learning (PBL) in improving the grammar competency of second-semester English Department students at Borneo University Tarakan. The primary objective of this research is to investigate the implementation of Problem-Based Learning (PBL) in teaching grammar and to evaluate its effectiveness in improving the grammar competency of second-semester students in the English Department at Borneo University Tarakan.

II. The Proposed Method

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III. Method

This study employed a collaborative classroom action research design, which followed the cyclical model of planning, acting, observing, and reflecting, as proposed by [13]. The study was conducted in two cycles, with each cycle consisting of two classroom meetings. The researcher, who also served as the lecturer for the Intermediate English Grammar class, worked together with a collaborator to implement and evaluate the use of Problem-Based Learning (PBL) as a teaching strategy to improve students' grammar competency.

Classroom action research was chosen because it allows the researcher to examine their own instructional practices and directly address issues in the learning process. According to [14], this type of research systematically collects information with the goal of bringing about educational improvements and social change. The participants were 32 students enrolled in the second semester of the English Education Department at a university. The group consisted of 8 males and 25 females. These students were selected because they were taking the Intermediate English Grammar course, and their grammar competency was considered representative of the target population for the intervention. Two main instruments were used in this study: 1) Observation sheet (Field Notes). The type of this instrument was qualitative instrument and it developed by the researcher. The purpose of using observation sheet is to record lecturer actions, students' activities, and their responses during the application of PBL. The observation focused on classroom interactions and engagement throughout the teaching procedure. The collaborator filled out the observation sheet during each class session across both cycles, documenting real-time behaviors and reactions. 2). Post-test Of Intermediate English Grammar. The researcher give objective test (Quantitative instrument) and it developed by the lecturer. The purpose of giving the post-test is to assess students' grammar competency after the implementation of PBL. The minimum mastery criterion was set at 70. The success of the interventions was determined by whether at least 75% of students met or exceeded this score. During each class meeting, the collaborator observed and documented the teaching and learning process using the observation sheet. After completing each cycle, students took the post-test, and their scores were recorded. Descriptive data from field notes were analyzed to understand the dynamics of classroom interaction and engagement. Statistical data from the grammar post-tests were analyzed to identify the improvement in student performance across the two cycles. The analysis aimed to evaluate both the effectiveness of PBL in grammar instruction and the overall learning process improvements.

IV. Finding and Discussion

A. Finding

1. Improvement in Grammar Competence

The implementation of PBL showed clear improvement in student's grammar performance from the first cycle to the second cycle.

Cycle One

The first cycle consisted of two meetings. The first meeting was held on 15 may 2023. Then the second meeting on 22 may 2023.

The Lecturer's activities

In both the initial and subsequent meetings of the first cycle, the lecturer essentially conducted identical exercises. The lecturer commenced the class with greetings and subsequently verified the attendance list, as is customary. The lecturer informed the students that she would employ the PBL method to instruct the grammar subject. Subsequently, the lecturer implemented the PBL technique. The following is the explanation; The lecturer presents problems for students to solve, specifically concerning the definitions of direct and indirect speech, and its illustrations as conversational text during the initial meeting, together with the application of direct and indirect in the form of conversation at the second meeting. The speaker thereafter organizes the students into seven groups.

The lecturer subsequently poses guided questions regarding the definitions of direct and indirect speech, their applications in sentences, and real-life instances within conversational texts. Following that, the lecture gives the students opportunity to discuss in their groups. Furthermore, the lecturer assigns one of the groups to present the results of their discussion in front of the class at random. Finally, the lecturer makes corrections to the students' explanations in front of the class.
Class.

The students' activities

The following is a description of what the students did in the first and second meetings of the first cycle. The students sat in the group of five, students discussed the definition of Direct and Indirect Speech and its example in the front of conversation text for the first meeting and the use of direct and indirect speech in conversation text. Students search for information needed from the internet and other sources. The designated presents the result of their discussion in front of the class and the other students ask questions about things they don't know.

Two groups failed to present their assignments at the first meeting of this cycle due to time constraints. The group then delivered their assignment at the next meeting.
During the second meeting, the entire group focused on their assigned task. Unfortunately, three students arrived late. They instantly joined their group to work on the lecturer's directions together. When the lecturer assigned a group to deliver the results of their debate, two students requested permission to go to the restroom. The discussion was going nicely.
The post-test meeting took place the week following the second meeting. The average result for this test was 62.5. Only 42.3% of students passed the minimal completion criteria. Thus, the first cycle was deemed unsuccessful.

2. Enhancement of Speaking and writing skills

Student activities during PBL session involved structured group discussion, problem solving and oral presentation. These practices contributed to :
a) Speaking Skills: Students were encouraged to articulate their ideas clearly in front of the class. They began using grammar structures such as passive voice and reported speech in authentic, daily-life conversation texts, enhancing fluency and grammatical accuracy.
b) Writing Skills: Students used grammar books and internet resources to construct their own dialogue-based texts. This application of grammar rules in writing tasks encouraged better retention and transfer of knowledge to real-world usage.
The improvement in communication suggests that grammar instruction through PBL supports

integrated language development, beyond isolated rule learning.

The Students Response

From the beginning of the first cycle, the students seemed to be comfortable with the problem-based learning (PBL) approach used by the lecturer. They responded positively by complying with the lecturer's instruction. There was only one group that was found to be deficient in the completion of their assignment. They were open in informing the lecturer that they were working on an assignment from a different lecturer. However, the other groups were proactive and diligent in seeking solutions to the problems presented by lecturer. At the end of the class, the students asked the lecturer for recommendation on grammar books for reference. The lecturer emphasizes the importance of understanding the explanations given and suggested that all available grammar book should be used.

During the second meeting, the students engaged in a serious discussion to find solution to the problems they had previously discussed. Each student brought their Intermediate English Grammar e-book, in contrast to the first meeting where they relied solely on the internet. At the end of the class, some students expressed to the lecturer that they still encountered difficulties when applying grammar rules in their writing. The lecturer advised writing every day while considering the grammar rules learned.

Cycle Two

There were two meetings for the second cycle. The first meeting was held on 5th June 2023, followed by the second meeting on 12th June 2023.

The Lecturer's activities

The lecturer activities in the first and second meetings of the second cycle were generally the same as those in the first cycle. However, there were differences in the problems given to students and the time limit for the discussion and presentation of results. In the first cycle, there was no definite time limit, as the lecturers relied on their intuition to stop the discussion and presentation. There was no specific time contract during cycle one. However, in cycle two, the lecturer allocated a set time for discussion and presentation. The discussion lasted for thirty minutes, while the presentation, including the question-and-answer section, lasted for forty-five minutes. The problem-based Learning (PBL) procedure in the second cycle was as follows: First, the lecturer provided the students with problems to solve. The problems given were related to the definition of Passive Voice and its examples in conversational text in the first meeting, and the type off Passive Voice and its example in conversational text in the second meeting. The lecturer divides the students into three groups. Then, the lecturer provides guided questions about the definition, types and examples of Passive Voice in conversational text. After that, the students discuss the topic with their respective groups for thirty minutes. During class discussion, the lecturer may randomly select a group to present their findings to the class. The presentation should be no longer than fifteen minutes. Last, the lecturer provided corrections to any student explanation in front of the class.

The students' activities

The following is a description of what students did in the first and second cycle. Students sat in groups of five. During, the first meeting, student discussed the definition of the passive voice and its examples in conversational text. In the second meeting, which lasted for fifteen minutes, they covered the types of passive voice and their example in conversational text. Students were required to search for the necessary information from the internet and grammar books they brought. It is important to note that the text did not require any additional aspect.

The designated group presented their discussion findings to the class, permitting other students to inquire about any ambiguous. The duration of the presentation is restricted to fifteen minutes. In both the initial and subsequent meetings of the second cycle, all student groups exerted considerable effort to fulfil the assignment provided by the lecturer.

In the first meeting, one meeting volunteered to present their discussion result before the lecturer had a chance to assign the task. Their presentation was excellent, consisting of a conversation text related to their daily lives. The conversation teaching text was sourced from the internet and written using the passive voice pattern that had just been learned.

During the second meeting, each group divided task among its member and discussed how to solve the problem presented by the lecturer. seven groups agreed to submit their findings, and the lecturer

requested that they draw lots. The presentations were of outstanding quality. The explanations given were thorough, and the dialogue was genuine. The second post-test was held on 19th June 2023, one week after the second meeting. The test has an average score of 72.4, and 78 % of the students met the minimum completion criteria. Thus, cycle two can be deemed successfully.

The Students' Response

All students were comfortable with the PBL method employed by the lecturer. They were enthusiastic about attending the grammar class, as evidenced by the second meeting's presentation time, during which all groups were eager to present their discussion results. The students appeared more engaged, and there was no instance of tardiness. No students expressed a desire to leave the class before the scheduled end time.

Teaching grammar through problem-based learning not only improves students' grammar competence but also enhances their speaking and writing skills. During the discussion of grammar problems presented by the lecturer, the students endeavoured to express their ideas and solution to their peers with clarity and precision. They interchanged this condition when giving question and answers, as well as when presenting their discussion results to the class. They attempted to use appropriate grammar when asking and answering question [15]stated that grammar can be a great resource for efficient communication. Everyone is aware that communication can take the form of oral or written. Therefore, the activities that the students did in their grammar class could also improve their speaking skills, as shown by the reading texts that were no longer copied from the internet. The students enjoyed applying their grammar lesson to their speaking skill. [15]argues that enhancing student motivation may contribute to better learning results. This was evident when the students followed the lecturer's instructions in their grammar class.

B. Discussion

Teaching grammar using problem-based learning not only improves students' grammar skills, but also their speaking and writing abilities. During the lecturer's discussion on grammar problems, the students tried to express their ideas and solutions to their classmates in a clear and concise manner.

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Therefore, the activities that the students did in their grammar class could also improve their speaking skills, as shown by the reading texts that were no longer copied from the internet. The students enjoyed applying their grammar lesson to their speaking skill. Learning is an interaction among educators, students, and educational resources within a learning environment. According to [16] teachers facilitate students' acquisition of information and resources through the learning process. Gain knowledge, skills, and character development in a learning atmosphere.

V.   Conclusion

This research examined the impact of Problem-Based Learning (PBL) on grammatical proficiency within 32 second-semester students in the English Department at Borneo University Tarakan. The implementation of PBL in two classroom cycles demonstrated a notable enhancement in students' grammatical proficiency. The average post-test score increased from 62.5 in the first cycle to 72.4 in the second, while the percentage of students meeting the minimum mastery level rose from 42.3% to 78%. Additionally, PBL created a more engaging learning environment where students actively participated in discussions, presentations, and group collaboration. Students' speaking and writing skills also showed notable improvement as they used conversational texts to express their understanding of grammar points such as direct/indirect speech and passive voice. The findings suggest that incorporating PBL in grammar instruction not only enhances grammatical competence but also supports the development of communication skills. Through PBL, students had more opportunities to express their ideas orally and in writing, apply grammar in real-life contexts, and engage in peer feedback. These results align with the principles of communicative language teaching, emphasizing interaction and meaningful use of language. Furthermore, students' increased motivation and autonomy were key factors that contributed to their learning success, demonstrating that learner-centred approaches can be highly effective in EFL grammar classrooms. The findings suggest that incorporating PBL in grammar instruction not only

enhances grammatical competence but also supports the development of communication skills. Through PBL, students had more opportunities to express their ideas orally and in writing, apply grammar in real-life contexts, and engage in peer feedback. These results align with the principles of communicative language teaching, emphasizing interaction and meaningful use of language. Furthermore, students' increased motivation and autonomy were key factors that contributed to their learning success, demonstrating that learner-centred approaches can be highly effective in EFL grammar classrooms. Future researchers are encouraged to explore the long-term effects of PBL on various language skills beyond grammar, such as reading comprehension and listening ability. It is also recommended to conduct similar studies across different educational contexts and proficiency levels to assess the broader applicability of PBL. Moreover, incorporating digital tools and online collaboration platforms could be examined as a way to further enhance PBL-based grammar instruction in hybrid or remote learning settings.

Acknowledgment

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