Project-Based Learning in Developing Speaking Skills and Cross-Cultural Competence at SMP Swasta Santo Xaverius 1 Kabanjahe

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Abstract: This study aims to assess the effectiveness of Project-Based Learning with the *Merdeka* Curriculum in SMP Swasta Santo Xaverius 1 Kabanjahe in developing speaking abilities and Cross-Cultural Competence. Bridging this gap in practical language use education, the current study was conducted using a quasi-experimental method for assessing speaking and cultural understanding of the experimental class that would apply the Project-Based Learning approach in comparison with a control class going for the traditional approach. It involved 30 seventh-grade students for both pre- and post-tests. Other tools used included questionnaires and observational feedback. Results show speaking skills are significantly improved, as revealed by the mean scores improving in the post-test by 19.46 percent while that of the control group is at 14.6 percent. What's more is that cultural awareness developed among the PBL group. Qualitative feedback also showed increased student engagement, greater confidence in speaking English, and an enhanced appreciation of diverse cultural perspectives. Such findings also accord with the possible application of PBL in enhancing language skills but also in the development of intercultural competence, hence its broader applicability within the *Merdeka* Curriculum framework.

Keywords: Project-Based Learning, *Merdeka* curriculum, speaking skills.

1   Introduction

In the present global village, the ability to communicate across the cultures effectively is as crucial as the language ability itself. It is cross-cultural competence that helps a student negotiate his or her ways through the globalization situation by understanding, respecting, and adapting to the situation that arises. The new generation has really impacted many aspects of our lives, especially in education. With the changing world of education, comes changing curricula. Curriculum is one of the most crucial tools of education; it involves implementations that are upgrading versions and better than those preceding them (Mutale, 2018). A curriculum embodies the intentions of education; it is the program of education. A curriculum carries the beliefs, values, attitudes, skills,

knowledge and all that education is about. One would wonder how especially formal education can take place without a curriculum. The problems and challenges of education are now more and more demanding to have a curriculum flexible towards technological changes and globalization. More practical methods of teaching in English education are also highly needed, especially to create students' innovation and creativity in speaking, either formal or informal communication. The new *Merdeka* Curriculum is proposed in Indonesia, and it presents Project-Based Learning to increase the education quality by using active learning and practical approaches. Project-based learning is gaining popularity as a student-centered approach to education. It provides a multitude of benefits, especially compared to the practices surrounding standardized testing. the value of project-based learning and the opportunities this method provides to differentiate instruction and allow all students to access the curriculum at their individual levels and abilities. PBL allows teachers to work with struggling students and, at the same time, provide opportunities for higher achieving students to challenge themselves Bergeron (2016). PBL is an active learning methodology; in its application, it can develop both the speaking competence of students and their cross-cultural competence. In project work and close collaboration, students have to exercise problems in real-world application. This development of language and culture allows the student to emerge as a more effective communicator in a multi-cultural environment, thus furnishing them with the skills they would require to thrive well in a global community.

In the tertiary level, good communication skills are vital for EFL undergraduates to be successful in their studies and later on in their careers. English learners should be motivated and given opportunities in using English for effective communication. Good speaking ability is crucial for the learners' progress at the university, and it is also regarded as a requisite for obtaining good jobs out in the labor market. Consequently, it is such an emphasis on the importance or need for effective English-speaking skills that has therefore led many schools and educational institutions to focus on training their learners to be effective English-speaking individuals to be able to survive in the employment market Sirisrimangkorn (2021). Therefore, Project-based learning, an educational approach emphasizing hands-on, inquiry-based learning, has been inherently constructivist in nature. It allowed students to engage with real-world problems, collaborate with peers, and construct their knowledge through exploration and problem-solving (Almulla, 2020)

According to Wongdaeng & Hajihama (2018) PBL increases learners' interest in learning English by actively engaging them in the learning process. PBL, therefore, is bound to have more energetic and motivated students with improved speaking abilities. Zhang & Ma (2023) state PBL significantly improves the academic achievement, motivation and high-level thinking ability of students. English is an international language used in business, science, politics, and the media. Thus, having it integrated into education means equipping learners with the skills in using English effectively. Speaking is the major element in the acquisition of English since it perfects the ability of students to express themselves confidently in their normal daily lives and big communities. However, low confidence and few opportunities for practice make speaking in English still difficult for Indonesian students Zoghbor & Al-alami (2020). Research indicates that Project-Based Learning (PBL) significantly enhances student learning compared

to traditional educational methods, which view students as passive recipients of knowledge. PBL not only enhances critical skills like critical thinking, communication, time management, and group work but also empowers students by valuing their voice and authenticity. It also helps bridge the gap between the skills valued by employers, such as social skills, and those emphasized by academic institutions, which often prioritize academic knowledge. We (2020) reveals that PBL was a method which could improve students' English speaking skills effectively. The students could think actively encouraged by the projects and apply it through English communication with their peers. The students also felt enthusiastic while participating in any presentations and discussions. In addition, Tempera & Tinoca (2023); Quinapallo-Quintana & Quinapallo-Quintana (2024); Sulong, Sermsook, Sooknit, & W. Worapun (2023) PBL is an active methodology with significant benefits in the teaching-learning process of students of the Pedagogy in Experimental Sciences career, among which it stands out to promote the understanding of scientific concepts, the development of research and problem-solving skills, the collaboration and teamwork skills.

Moreover, project-based learning will play a significant role in developing English language skills. In a Quasi-experimental design, Pramesti, Manurung, & Aminah, (2023); Mislena (2021); Hakimah (2023); Sultana and T. M. Musavi (2023) prove that PBL not only develops language skills in reading, listening, writing, and vocabulary but also fosters very important academic competencies, which include creativity, critical thinking, and problem-solving. The evidence suggests that if students work on real-word challenging yet relevant tasks, this can lead to high-order academic success in language learning contexts. Such findings give great meaning to PBL and the change to create more engaging and effective learning environments with regard to encouraging deeper understanding and practice in using English language skills. PBL can, therefore, tactically be infused into an English language teaching curriculum as a means to achieve higher levels of student engagement and improved language skills. This discrepancy is highlighted by both historical anecdotes and studies, suggesting a mismatch between educational outcomes and workplace expectations.

Although the benefit of PBL to enhance students' speaking skill is recognized, there is still a huge gap in terms of the systematic application and empirical evaluation of its practices within Indonesia's *Merdeka* Curriculum, particularly at the secondary school level. While a number of existing studies have pointed out that PBL can be an effective approach in enhancing engagement and learning outcomes, little research has actually been done to develop speaking skills in English among Indonesian students. Indeed, this dearth of studies is further compounded by the fact that few available studies assess the long-term impact of PBL on the development of speaking proficiency and how such skills acquired by learners translate into actual effectiveness in the real world. Moreover, the way PBL allows addressing, by being combined with the *Merdeka* Curriculum, a number of the specific challenges observed in Indonesian students related to low confidence and few chances for practice in English communication, is not well understood Zoghbor & Al-alami (2020). It is in light of these critical gaps that this research will be designed to assess whether it is effective to apply PBL within the *Merdeka* Curriculum for enhancing English speaking skills at SMP Swasta Santo Xaverius 1 Kabanjahe, providing a model replicable across similar educational settings.

2   Literature Review

2.1   Definition of Curriculum

The word curriculum is obtained from the Latin word and essentially refers to the backbone of any educational system that dictates the processes of teaching and learning in an institution. It involves the total experiences that students go through in attaining approved standards of competence. According to Mutale (2018), the curriculum does not only offer theoretical approaches but facilitates students' experience and psychological development by encouraging them to make efforts towards perfecting their skills. The Department of State Education defines it as a plan containing educational tools intended to achieve well-established standards on learning materials, methods, techniques, and infrastructure in the curriculum. In this regard, curriculum formulation is essential for the betterment of education quality and to promote equal opportunities for students at large (Fonseka, 2024) in ELT literature the *curriculum* is defined by different authors in different ways, and still there is room for improving the definitions already developed and used widely. An understanding of what the curriculum is would be important for the decision makers as well as the teachers and the students who are concerned with the development and implementation of a curriculum, because the right conceptualization of the curriculum only guarantees a reasonable adherence to it by the teachers and students, and because the success of a course lies in the successful implementation of the curriculum.

2.2   *Merdeka* Curriculum

The *Merdek*a Curriculum is another national curriculum reform conducted to face today's challenges in education, introduced in Indonesia since 2021. It prioritizes character education, life skill education, active learning, and technology utilization in the production of intelligent and skilled human resources. Among the key indicators of the *Merdeka* Curriculum are independence, development of character, life skills, active learning, and putting technology into education. The *Merdeka* Curriculum is an update motivated by the advancement of existing technology and its usage has been highly emphasized during the Covid-19 pandemic. However, this requires various elements of education to adapt to this, giving birth to the New Curriculum, namely the *Merdeka* Curriculum. The *Merdeka* Curriculum acts as a recovery option for learning launched by the Ministry of Education, Culture, Research and Technology (*Kemdikbudristek*) to announce a regulation on the development of the *Merdeka* Curriculum Sampe (2023) Bastian, Firdaus, and Rizky (2023)

There is an essential need to conduct comparative studies that evaluate the effectiveness of the *Merdeka* Curriculum compared to the traditional teaching method in enhancing speaking skills. According to Hartono (2022) due to the fact that the *Merdeka* Curriculum is relatively new, there exists a huge vacuum in empirical studies concerning its implementation and how effective it has been in improving some educational outcomes, including speaking skills in English.

2.3   Project-Based Learning (PBL)

PBL is an active teaching and learning process focused around sttidakudent engagement and participation (de la Torre-Neches, Rubia-Avi, Aparicio-Herguedas, & Rodríguez-Medina, 2020). It includes practical applications, comprehensive exercises, and the use of technology in enhancing learning outcome Cole et al (2024). PBL sharpens students' speaking skills through much practice and real-world application. Some of the greatest challenges to students in developing speaking skills are very well covered, as the pedagogy encourages collaborative learning, critical thinking, and creativity. The integration of Project-Based Learning is also meant for problem-solving skills, creativity, and critical thinking of the students. Related to the above context, Markula and Aksela (2022) informed there exist five major differences in PBL: driving questions, learning objectives, practical practices, team collaboration, and use of technology. These guide the practice of PBL for the realization of productive and engaged learning processes. According to Weller (2023), the key principles of PBL are authenticity, student-centeredness, use of technology, collaborative work, integral learning, inquiry-based learning, reflection, focus on basic knowledge and major skills, feedback and revision, and public product presentation. These principles underline the way PBL is being practiced effectively in educational settings.

3   Method

3.1   Research Type

This is a two-variable research approach that could be used to evaluate the effect of project-based learning intervention as a treatment since it compared results between the experimental and control groups. This design uses a quasi-method in assessing the impact of project-based learning interventions. The quasi-method makes it possible to compare the method of the control and experiment groups and assess their effectiveness in modeling phenomenon in an education setting.

3.2   Research Subjects

The focus of this study is the seventh-grade students of SMP Swasta Santo Xaverius 1 Kabanjahe, consisting of 30 students wherein two classes are divided into one experimental group and one control group. The classes used were chosen after obtaining permission to conduct this research from the school administration.

3.3   Research Procedure

As explained by Zubair (2023), quasi-experimental research involves the settings or backgrounds of education and underscores the need for control and experimental groups in the testing of educational interventions. The procedure under this methodology is to carry out a pretest to obtain a baseline for speaking ability, to intervene in the treatment group with the PBL, while the comparison group would continue with its natural progression, and to integrate posttests to assess the intervention's effectiveness.

Besides, questionnaires are used to generate qualitative data on an account of students' attitudes towards the PBL approach. Data collected from tests and questionnaires are, in turn, statistically analyzed to measure improvements in speaking skills as well as attitudes of the students towards the learning process. This abstracted framework helps to connect how the concept of PBL can be implemented thorough practices in line with the educational reforms in Indonesia.

Steps in the Quasi-Experimental Research

1. Pre-test

   First, both of the groups, the experimental and the control group, are applied with an equal pre-test to identify the ability to speak before the experiment.

2. PBL Treatment

   The class experiment is taught by the project-based learning method, focusing on speaking skills via media Canva and YouTube on the topic "Greetings," whereas the control group was treated using the expository method.

3. Pos-ttest

   After intervention, a posttest is taken on the two groups to determine the impact of Project- based learning intervention.

4. Questionnaire

   After the post-test the subject is given a questionnaire regarding their perception and suggestion about learning process and effectiveness on the project-based learning.

4   Results and Discussions

4.1   Results

These results have been obtained in relation to a comparative study between PBL and traditional lecture methods in enhancing seventh-grade speaking at SMP Swasta Santo Xaverius 1 Kabanjahe. It was aimed at establishing whether these teaching methodologies are effective or not. Looking at both the quantitative scores and the qualitative feedback, this study gives the maximum assessment of how different educational strategies are affecting the learning outcomes among students.
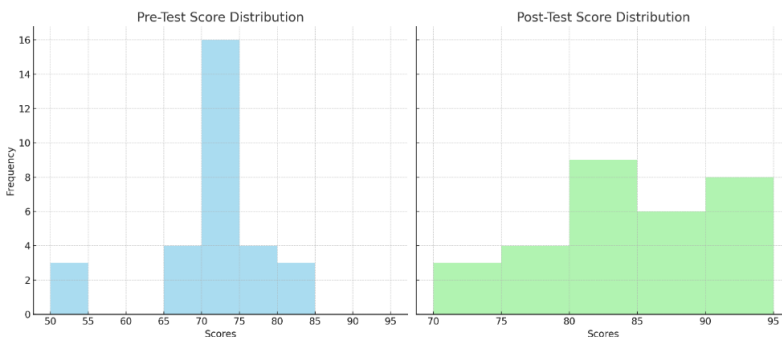

Fig. 1. The Score Distributions for the Pre-Test and Post-Test

The pre-test and post-test scores have been graphically presented in the histograms, which show distributions of the effect of teaching methods on student performances. The pre-test histogram presents the majority of scores clustered around the 70 mark ranging from 50 to 80. Such distribution of scores suggests that performance levels among the students were varied before the implementation of the intervention of Project-Based Learning (PBL) methods and the traditional lecture methods. In sharp contrast, the post-test histogram shows a significant shift of scores towards high scores, although primarily clustered between 80 and 90. This, again clearly indicates much better enhancement of student performance post-intervention. A clustered higher range of scores post intervention may sometimes reflect the good teaching practices followed, especially using the PBL approach, as in this study, which has found to be a tool in active learning and found to be more applied in nature.

A comparison of the pre-test and post-test histograms clearly illustrates the development in student competencies. In other words, this score distribution that has moved upwards in the post-test not only indicates effectiveness but also clearly registers those educational strategies applied, influenced it. This means that the frequency of scores above 80 did post-intervention significantly increase after adoption of engaging teaching methodologies, resulting in significantly more improved student outcomes. It therefore follows from the visual data that new interactive methods of teaching, such as PBL, have greatly increased student performance, especially in the development of practical skills, such as speaking, without which language learning cannot be complete.

Table 1. The Summary of Scores

Class	Pre-Test Mean	Post-Test Mean	Standard Deviation (Pre-Test)	Standard Deviation (Post-Test)
Experimental	74.00	88.40	4.14	4.24
Control	65.73	80.33	7.68	4.95

Quantitative data analysis showed that there was a significant improvement in the speaking ability of the students in the experimental class. Their average increased from 74.00 in the pre-test to 88.40 in the post-test. However, the control group's average increased from 65.73 to 80.33. This therefore indicates that while there was an improvement with both approaches, there were more significant gains with the PBL approach. On the other hand, qualitative feedback supported these findings, in which students in the PBL class claimed to increase their vocabulary, fluency, and confidence. This more active and hands-on approach of PBL enabled students to become more fully engaged and strengthened their capacity with regard to the application of language skills in practical contexts.

Table 2. The summary table of the T-Test Calculations and Results for both the experimental (PBL) and control (lecture) groups

Group	Pre-Test Mean	Post-Test Mean	Standard Deviation (Pre-Test)	Percentage Improvement
Experimental (PBL)	14.4	3.87	14.41	19.46%
Control (Lecture)	14.6	3.68	15.37	22.23%

The results imply there are clear improvements in both groups, since the p-values are far below the conventional limit of 0.05, clearly showing a high degree of statistical significance in the change from pre-test to post-test scores in both research groups. The effectiveness of the experimental group, where PBL was applied, was very high, according to the t-value and very small p-value, thus underscoring the effect of PBL in enhancing speaking skills.

PBL Experimental Group: The decrease in the p-value, along with a large mean increase from pre-test to post-test scores, supports that PBL effectively enhances speaking skills, evidenced by the rejection of the null hypothesis. Control Teacher Group: One cannot discount that, in contrast to this, the traditional method also puts on an effective improvement of statistical significance; however, the context and pedagogy of the experimental group place PBL as potentially more powerful in its learning experiences. Both hypotheses were rejected, so improvements for both groups are significant; however, likely, the method of the experimental group, PBL, offers a more dynamic and interactive learning environment.

4.2 Discussion

PBL creates a setting where students are the main agents and owners of their learning and also allows for the enhancement of more complex skills, such as speaking and cross-cultural competence. Engaging students in collaborative and critical activities that need the application of knowledge enhances retention and makes the learning experiences more meaningful. This fact had been proved in a structured study at SMP Xaverius Kabanjahe. The ability of the students to speak English was significantly enhanced by PBL. The experimental class using the PBL method gained a very great improvement from average score of 74.00 in the pre-test to 88.40 in the post-test with a gain of 14.4 or about 19.5%. This development further underlines PBL's effectiveness at enhancing speaking relative to and further outperforming traditional teaching approaches.

Secondly, PBL is about genuine projects and genuine issues that offer learners exposure to other cultures that enhance their cross-cultural ability. The interactive nature of PBL will encourage students to understand and respect cultural norms of different cultures, thus making them culturally competent and able to easily communicate with a multicultural environment. The statistical analysis, at the p-value of about

0.0000000861, points to the development as highly significant and not being due to chance, which deepens the positive effect of PBL on both speaking skills and cross-cultural competence. In contrast, whereas the traditional lecture-based approach gave way to an increase for the control group, the qualitative and quantitative gains for the PBL group were much greater. The higher engagement at the PBL setting level is due to the emphasis on problem-solving within a collaborative environment and active participation, known as integral pieces to the mastery of both the communication skills and cultural awareness.

5   Conclusion

The present study at SMP Xaverius Kabanjahe proved that PBL is not only more effective in developing students' speaking skills but also plays an important role in nurturing cross-cultural competence. Quantitative data analyses conducted also revealed that the experimental group students who received the instructions through PBL significantly improved their speaking skills from the mean score of 74.00 in the pre-test to 88.40 in the post-test, with an increase of 14.4 points or about 19.46%. This improvement was accompanied by a highly significant p-value of about 0.0000000861, which signals the effectiveness of PBL on the realization of a considerable speaking skill gain.

More importantly, the level at which PBL engages interactive learning as a means of developing cross-cultural competence remains unparalleled. By encouraging active involvement, group collaboration among students, and applying knowledge to practice, PBL enhances speaking skills and develops in students the competency to navigate and value cultural diversity-a dual focus on speaking and cultural awareness that is at the core of this mission in developing well-rounded, globally-minded individuals. This is further confirmed by the qualitative feedback from students of the PBL group, as evidenced by improvement in vocabulary, fluency, confidence, and even cultural understanding, all being constituents in effective communication within a multi-cultural context. Overall, this research shows that PBL gives a wholly integrated methodology for education, dramatically impacting students' speaking skills and cross-cultural competence, equipping students with what they need to be successful in the complex network of a diverse world.

Further, the focus PBL places on projects and problems set in the real world allows students to interact with different cultural views, thus enriching their cross-cultural competence. The interactive nature of PBL classwork invites students to understand and respect other cultural norms, developing a greater cultural awareness that better prepares them for cross-cultural communication. The statistical analysis yielded a p-value of approximately 0.0000000861, which showed that the gain was highly significant and rather impossible to have happened by chance; thus, it further justified the effectiveness of PBL on both speaking skills and cross-cultural competence. By contrast, traditional lecture-based instruction gave some improvement in the control group as well; however, qualitative and quantitative gains were greater for the PBL group.

This more significant engagement in PBL settings could perhaps be because of the emphasis on collaboration on problem solving and activity level in PBL settings, which is really conducive to mastering both communication skills and cultural awareness.

Disclosure of Interests. It is declared that there are no competing interests in the content of this article.

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