



## **Bridging Arabic Language Gap: Project-Based Learning through a Peer Tutoring for Pre-University Learners**

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### **Abstract**

This study aims to determine the effectiveness of implementing the Project-Based Learning (PjBL) model combined with the peer tutoring method in improving and bridging the gap in Arabic language proficiency among pre-university students. The method used is quantitative with a quasi-experimental design. The research sample comprised 48 pre-university students at The research sample comprised 48 pre-university students from one of the Islamic boarding schools in Indonesia. The research instruments included tests (descriptive statistical analysis, N-Gain test, and T-test) and a questionnaire. The experimental class's pre-test scores ranged from a minimum of 40 to a maximum of 74, with an average of 58.25, while the post-test scores showed a significant increase, ranging from 73 to 98, with an average of 86.29. The control class showed a lower improvement, with a pre-test average of 57.75 and a post-test average of 70.04. The N-Gain result for the experimental class was 69.07% (moderate category), while the control class scored 29.70% (low category), showing a difference of 39.37%. The T-Test results indicated a sig. (2-tailed) value of  $0.000 < 0.05$ , demonstrating significant effectiveness in the experimental class. Student response toward implementing the PjBL model and peer tutoring reached 83.23%, which is considered positive. Therefore, the implementation of the PjBL model and peer tutoring method has proven effective in bridging the gap in students' Arabic proficiency and in producing personalized vocabulary dictionaries.

**Keywords:** *Project-Based Learning (PjBL), Peer Tutoring, Arabic language learning.*

### **INTRODUCTION**

The varying Arabic language skills among university students have become an important issue in language learning (Annisa & Safii, 2023; Jundi et al., 2022). Each student has a diverse background, including differences in their understanding of grammar, vocabulary, and speaking skills (Sakdiah & Sihombing, 2023; Tungkagi et al., 2022; Zurqoni et al., 2020). These variations create challenges in teaching Arabic in the classroom, especially when the learning materials are not in-depth enough to address each individual's needs (Hastang & R., 2023). Students with lower proficiency

often struggle to follow the lessons (Widodo et al., 2022), while more advanced students feel bored and unchallenged (Tse, 2000). This heterogeneity in Arabic language skills hinders optimal learning outcomes (Syukran, 2019). As a result, learning Arabic in the classroom becomes less effective and risks widening the skill gap among students.

Moreover, in classroom situations limited by time (Husna, 2024), lecturers often lack sufficient opportunities to provide individual attention to each student (Yasir, 2018). Existing classroom-based learning systems often assume a uniform level of ability among all students, which may not be effective for some (Felder & Brent, 2005; Nurtresnaningsih, 2020). This creates a need to find methods to accommodate individual differences while bridging existing gaps (Alghasham, 2012). Various teaching methods have been implemented, but they still need to meet the needs of students with significantly different abilities.

On the other hand, most students have sufficient cognitive abilities and can understand language concepts theoretically, even though they struggle in practice (Todorova, 2024). This indicates that the gap in Arabic language skills among students is not entirely a cognitive issue but rather a limitation in applying that knowledge in real contexts (Abdullah et al., 2021). Students may theoretically understand grammar and vocabulary concepts, but they need more practice and support to develop their practical Arabic skills (Qomaruddin et al., 2023). Therefore, more practical and interactive Arabic learning approaches are essential to address the language skill gaps experienced by students (Ma'ruf & Mathoriyah, 2024; Miftah & Syamsurijal, 2024).

Vygotsky (1980), through the theory of the Zone of Proximal Development (ZPD), offers an interesting perspective for addressing gaps in the learning process. This theory highlights the importance of social interaction and the role of mediators in learning, where learners can reach their maximum potential with assistance from more competent peers (Alghamdy, 2023). In this context, peer tutors can act as companions who help students overcome their limitations through direct guidance. Peer tutors can provide more focused and targeted assistance, especially in language learning situations where interaction and immediate feedback are crucial (Mesghina et al., 2024). The peer tutoring method, rooted in ZPD theory, can be integrated with the Project-Based Learning (PjBL) model (Amamou & Cheniti-Belcadhi, 2018), considering that students already possess analytical thinking skills that can be optimized through project-based learning (Kurniawan, 2020).

Some researchers consider John Dewey a pioneer of project-based learning because his works highlight the importance of learning through direct experience or practice (Wahbeh et al., 2021). Project-Based Learning (PjBL) is recognized as an active instructional approach that promotes student participation and collaboration (Neches et al., 2020). According to Guo et al. (2020) PjBL supports students in constructing knowledge and enhancing their learning skills through structured activities and learning goals guided by essential questions.

The Project-Based Learning (PjBL) model has been widely applied in Arabic language teaching and has shown positive results. A study conducted by Muid et al. (2022) demonstrated that implementing this model significantly improves students' Arabic speaking skills. In addition, Arifah et al. (2024) found that PjBL also increases students' interest in learning Arabic. Further findings by Muid & Pratama (2024) confirm that this model encourages active participation and student engagement throughout the learning process. Moreover, PjBL has also proven effective in stimulating students' creativity, especially in Arabic-speaking practice (Sari & Syarofah, 2023; Susanto et al., 2022).



particularly concerning curriculum integration, speaking skills (*Maharah Kalam*), and the use of digital media. However, no direct connection was found with the peer tutoring method, even though related themes such as collaborative learning and motivation were identified. This indicates a significant research gap, meaning that few studies have developed Arabic language learning models based on PjBL that integrate the peer tutoring method. Developing an innovative model combining PjBL and peer tutoring presents an opportunity to fill this gap in Arabic language education research.

Therefore, this study aims to address this gap by investigating the effectiveness of the Project-Based Learning (PjBL) model combined with the peer tutoring method in Arabic language learning, particularly within the context of pre-university students. The collaboration between the PjBL model and peer tutoring is expected to provide a solution for bridging the gap in Arabic language skills among students. This study aims to assess the effectiveness of implementing a project-based learning model with the peer tutoring method in bridging the gap in students' Arabic language skills. Hopefully, this research will contribute to developing adaptive and collaborative learning models to support the success of Arabic language education in higher education institutions.

## LITERATURE REVIEW

Project-Based Learning (PjBL) is a dynamic pedagogical approach in which the learning process centres on complex projects, solving real-life problems, or exploring challenging questions (Omelianenko & Artyukhova, 2024). This model positions students as active participants in learning activities, engaging in design, problem-solving, decision-making, and investigation (Afzal & Tumpa, 2025). Throughout the process, students are given the freedom to work independently for relatively long periods. In the context of PjBL, projects are not optional elements; instead, they are a core part of the curriculum, designed to foster in-depth understanding and build meaningful knowledge. One of the key characteristics of PjBL is its high level of authenticity, which links learning materials to the realities of students' lives and the environment outside the classroom, making learning more relevant and contextual (Al-Kamzari & Alias, 2025).

The implementation of PjBL has been proven to bring various benefits, including increased student engagement, motivation, and interest in learning, as this approach provides real and meaningful learning experiences (Al-Bahadli et al., 2023; Almulla, 2020; Awamleh, 2024). PjBL also encourages students to take responsibility for their learning process, strengthening their sense of ownership and independence in learning (Tia & Wangid, 2024). Moreover, this model effectively develops 21st-century skills, such as critical thinking, problem-solving, communication, collaboration, and creativity (Zhang & Ma, 2023). Thus, PjBL bridges the gap between theory and practice, enabling students to apply their knowledge directly in authentic contexts.

As a teaching model, project-based learning is a student-centred pedagogy in which the instructor facilitates knowledge (Chiu, 2020). Sarip et al. (2024) emphasize that PjBL is not limited to theoretical mastery of subject matter as in traditional approaches but focuses on the meaningful application of the material in real-life contexts. According to Sopian (2022) the project-based learning model follows these implementation steps: 1). Determining the project, 2). Designing the steps for project completion, 3). Creating the project execution schedule, 4). Completing the project with teacher facilitation and monitoring, 5). Preparing the report and presentation, 6). Evaluating the process and project result.

Meanwhile, Peer Tutoring is an instructional strategy increasingly being implemented, particularly in higher education settings, to improve student academic success (Hidayat et al., 2023). In practice, peer tutoring involves students helping each other understand course material, whether through delivering material, explaining concepts, or assisting with specific academic assignments. Unlike conventional instructional approaches, this model emphasises dialogic interaction and peer feedback, creating a more inclusive and collaborative.

There are various forms of peer tutoring (Barahona et al., 2023; Bürgermeister et al., 2021; Kos, 2021), including same-age peer tutoring (tutoring between students of the same age), cross-age peer tutoring (where older students tutor younger students), and reciprocal peer tutoring (where students alternately act as tutors and tutees). In general, peer learning programs have demonstrated positive impacts on academic achievement, including increased understanding of the material, self-efficacy, and motivation to learn. A key concept in this practice is the protege effect, a reciprocal benefit that benefits both the tutor and the tutee. Tutors, in particular, gain a stronger understanding of the material through the active process of reviewing, organising, and conveying knowledge (Birtch et al., 2024).

## METHODS

This study employs a quantitative approach with a quasi-experimental design. The research design used is the nonequivalent control group design with pre-test and post-test. This design allows researchers to objectively compare learning outcomes between the experimental and control groups (Sugiyono, 2019). The design involves two groups: the experimental group, which receives treatment using a project-based learning model combined with the peer tutoring method in Arabic language learning, and the control group, which follows conventional learning without special treatment.

The study was conducted at Pondok Hajjah Nuriyah Shabran, Universitas Muhammadiyah Surakarta, involving 48 pre-university students divided into two groups, each consisting of 24 students for the experimental and control groups. In the experimental group, students were organized into four small groups, each comprising six members. The grouping was done heterogeneously based on their level of Arabic proficiency, with each group consisting of 2 advanced-level students, 2 intermediate-level students, and 2 beginner-level students.

The instruments used in this study included test and non-test instruments. The test instruments consisted of pre-tests and post-tests that underwent validity and reliability testing using IBM SPSS 25, with pre-university students from Ma'had Hidayatullah Batu serving as the trial subjects. The test questions included completing vocabulary and constructing perfect sentences (*Jumlah Mufidah*). The trial results served as the basis for refining the instruments before their use in the study. Meanwhile, the non-test instrument was a questionnaire to collect data on students' perceptions and responses to implementing the applied learning model.

The research procedure began with a preparation stage, which included developing and validating the instruments. Following this, the treatment implementation was conducted over a full month, from October 21 to November 16, 2024, with meetings held 5 times weekly, resulting in 20 treatment sessions. The study employed a series of statistical analyses to analyze the effectiveness of the treatment. The first stage involved descriptive analysis to describe the characteristics of the research data, including minimum and maximum values, mean, and standard deviation for both groups. Next, the N-Gain score was calculated to measure the improvement in learning outcomes between the pre-test and post-test, enabling a proportional

comparison of the treatment's effectiveness. The final analysis stage involved hypothesis testing using a t-test to compare the pre-test and post-test results of the two groups. The pre-test and post-test scores were analyzed using IBM SPSS 25 software.

## RESULTS AND DISCUSSION

A test instrument is considered effective as a measurement tool if it meets certain criteria, including high validity and reliability (Agustianti et al., 2022). The test instruments in this study underwent a series of validity and reliability tests involving 13 students from I'dad Hidayatullah Batu as trial subjects. The test instruments consisted of two types of questions: 30 multiple-choice questions and ten essay questions. SPSS 25 software was used to analyze the validity and reliability tests. The validity of the questions was determined using the criteria of  $R\text{-calculated} > R\text{-table}$ , with a significance level of 0.05 and  $N$  (number of respondents) = 13, resulting in an  $R\text{-table}$  value of 0.5529. Based on the validity test results, 17 of the 30 multiple-choice questions were deemed valid, and 6 of the 10 essay questions were found to be valid.

The valid test instruments were then subjected to a reliability test to ensure they were reliable enough to be used as data collection tools, as they were already well-designed (Darma, 2021). According to Sugiyono (2007), an instrument is considered reliable if the  $R\text{-calculated} > R\text{-table}$ , whereas if  $R\text{-calculated} < R\text{-table}$ , it is deemed unreliable at a 5% significance level. Additionally, Nunnally (as cited in Streiner, 2003) states that an instrument is considered reliable if Cronbach's Alpha reliability coefficient exceeds 0.70 ( $r_i > 0.70$ ). The results of the reliability test for the test instruments are as follows:

**Table 1.** Multiple Choice Question Reliability Test Results

Reability Statistics	
Cronbach's Alpha	N of Items
.966	17

**Table 2.** Essay Question Reliability Test Results

Reability Statistics	
Cronbach's Alpha	N of Items
.821	6

In Table 1, Cronbach's alpha value is 0.966 as the  $R\text{-calculated}$  value. This result will be compared with the  $R\text{-table}$  value with  $N = 17$  (the number of valid questions) and  $\alpha = 0.05$ . The  $R\text{-table}$  value obtained is 0.482. Therefore,  $R\text{-calculated} = 0.966$  is greater than  $R\text{-table} = 0.482$ . In Table 2, Cronbach's alpha value is 0.821 as the  $R\text{-calculated}$  value. This result will be compared with the  $R\text{-table}$  value with  $N = 6$  (the number of valid questions) and  $\alpha = 0.05$ . The  $R\text{-table}$  value obtained is 0.811. Therefore,  $R\text{-calculated} = 0.821$  is greater than  $R\text{-table} = 0.811$ . It means that the test instruments, including the multiple-choice and essay questions, are reliable and have a very high degree of reliability because both have a reliability coefficient greater than 0.8 (Arikunto, 2012).

After the test instruments were declared valid and reliable through statistical tests, the researcher proceeded to the data collection phase by conducting pre-tests and post-tests in both class groups. The pre-test was conducted simultaneously in the control and experimental classes to measure the student's initial abilities before the treatment. During the study period, the experimental class received treatment using a project-based learning model assisted by peer tutors, while the control class continued with conventional teaching methods. After the learning process was completed, a post-

test was administered to both classes to measure and compare the learning outcomes between the experimental and control classes. The results of the descriptive analysis of the pre-test and post-test are as follows:

**Table 3.** Descriptive Analysis Results of Pre-Test and Post-Test

	N	Min	Max	Mean	Std. Dev.
Pre-test Experiment	24	40	74	58.25	10.292
Post-test Experiment	24	73	98	86.29	7.208
Pre-test Control	24	42	74	57.75	8.533
Post-test Control	24	55	84	70.04	8.431
Valid N (listwise)	24				

In Table 3, based on the descriptive statistical analysis results using IBM SPSS 25, the data showed that the experimental group, with a sample size (N) of 24 students, achieved the following results. The pre-test results indicated a minimum score of 40 and a maximum score of 74, with a mean score of 58.25 and a standard deviation of 10.292. After the treatment was applied, the post-test results in the experimental class showed a significant improvement, with a minimum score of 73 and a maximum score of 98. The mean score increased to 86.29, and the standard deviation decreased to 7.208. The significant increase in the minimum scores from the pre-test to the post-test, along with the considerable improvement in the mean scores, indicates that the implementation of the PjBL model and peer tutoring strategy effectively helped bridge the gap in Arabic language skills among pre-university students at Pondok Hajjah Nuriyah Shabran, Universitas Muhammadiyah Surakarta.

Meanwhile, in the control class, the pre-test results showed a minimum score of 42 and a maximum score of 74, with a mean score of 57.75 and a standard deviation of 8.533. The post-test results in the control class also showed an improvement, although not as significant as in the experimental class, with a minimum score of 55 and a maximum score of 84, resulting in a mean score of 70.04 and a standard deviation of 8.431. Although there is a difference in the average scores between the experimental and control classes, an N-Gain analysis is needed to confirm the impact of using the PjBL model and peer tutoring.

Based on the results of the N-Gain analysis, the experimental class consisting of 24 students, achieved an average N-Gain of 69.07% with a standard deviation of 11.637. Meanwhile, the control class comprised 24 students and obtained a lower average N-Gain of 29.70% with a standard deviation of 11.531. According to Hake (1998), the N-Gain results for the experimental class are classified as having “moderate” effectiveness, while the control class falls into the “low” category. The difference of 39.37% indicates that the effectiveness in the experimental class is significantly greater than that in the control class. Based on these findings, using the Project-Based Learning (PjBL) model and peer tutoring strategy is more effective and positively impacts student learning outcomes.

This study further involved hypothesis testing to analyze the impact of the Project-Based Learning (PjBL) model and peer tutoring strategy on the effectiveness of Arabic language learning among pre-university students. Based on the data analysis, it was found that the data were normal and homogeneous, allowing the t-test to be applied. The null hypothesis (H<sub>0</sub>) states no significant difference in learning outcomes between the class using the PjBL model with peer tutoring and the class using conventional methods. The alternative hypothesis (H<sub>a</sub>) states a significant difference in learning achievements between the class using the PjBL model with peer tutoring

and the class using conventional methods. The following are the t-test results obtained using SPSS software:

**Table 4.** T test results (Independent Samples Test)

		Independent Samples Test				
		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	
Result	Equal variances assumed	2.265	.139	7.177	46	
	Equal variances not assumed			7.177	44.914	
		Independent Samples Test				
		t-test for Equality of Means				
		Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Result	Equal variances assumed	.000	16.250	2.264	11.692	20.808
	Equal variances not assumed	.000	16.250	2.264	11.689	20.811

In Table 4, the SPSS 25 output shows a sig. (2-tailed) value of 0.000, which is smaller than  $\alpha=0.05$ . The statistical data analysis indicates that the null hypothesis ( $H_0$ ) cannot be accepted, and the alternative hypothesis ( $H_a$ ) is accepted. These findings highlight the success of integrating the PjBL model with the peer tutoring strategy in optimizing student learning outcomes. The successful implementation of these two learning methods is evidenced by the higher scores achieved by the group of students receiving the treatment compared to the group undergoing conventional learning methods.

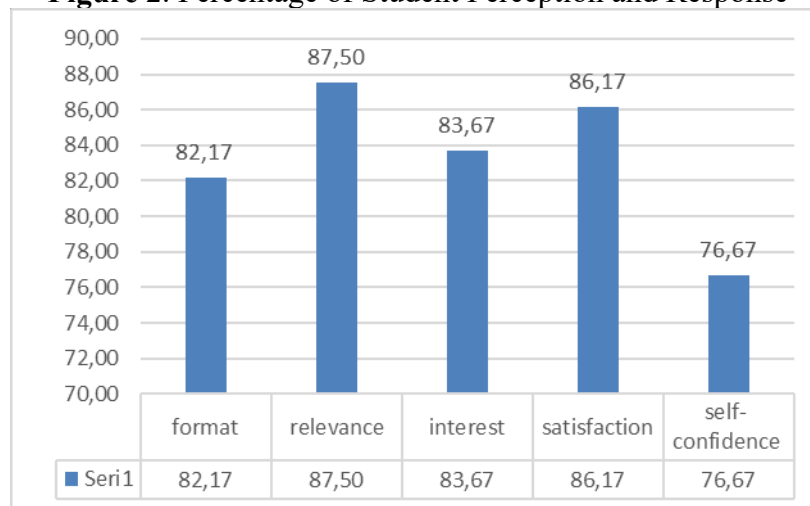
The combination of Project-Based Learning (PjBL) and peer tutoring has been proven to enhance students' understanding of the learning material and create a more active and meaningful learning environment. When students engage in project-based learning and collaborate with their peers, they can better understand the material, facilitating optimal learning outcomes. The results of this study align with existing studies, which state that peer tutoring and Project-Based Learning (PjBL) both encourage collaboration, independence, and active engagement in language learning. The combination of the two has been shown to strengthen motivation and create a reflective and participatory learning environment.

Suharto et al. (2019) researched the effectiveness of implementing the Project-Based Learning (PjBL) model and peer tutoring, in which he found that similar results were shown, highlighting that the application of Project-Based Learning (PjBL) and peer tutoring strategies encourages students to take an active role in learning, thereby achieving the desired learning objectives. Another study by Widyastuti (2021), which combined project-based learning methods with peer assessment, demonstrated effectiveness in improving students' speaking skills. These findings strengthen the relevance of implementing this combined strategy in the context of communicative language learning.

To further explore students' responses and perceptions of the PjBL model and peer tutoring strategy, the researcher employed a non-test instrument in the form of a questionnaire. Students' responses and perceptions were measured across two aspects: their engagement during the learning process and their reactions after the learning activities (Lijana et al., 2018). The questionnaire used indicators such as format, relevance, interest, attention, satisfaction, and self-confidence (Aisyah et al., 2013).

To assess students' perceptions and responses to implementing the Project-Based Learning (PjBL) model integrated with peer tutoring, the researcher utilized a 5-point Likert scale questionnaire via Google Forms. The response options were: 5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, and 1 = Strongly Disagree. The interpretation of the questionnaire results was as follows: 81%-100% indicates a very positive response, 61%-80% a positive response, 41%-60% a somewhat positive response, 21%-40% a negative response, and 0%-20% a very negative response (Riduwan, 2018). The following are the percentage results of the student response questionnaire regarding the implementation of the PjBL model and peer tutoring strategy:

**Figure 2.** Percentage of Student Perception and Response



In Figure 2, the results of the questionnaire analysis regarding students' responses to implementing the Project-Based Learning (PjBL) model integrated with peer tutoring revealed an overall average percentage of 83.23%, indicating a very positive response. Specifically, the relevance indicator achieved the highest percentage at 87.50%, followed by satisfaction (86.17%), interest (83.67%), and learning format (82.17%). All these indicators fall within the very positive category, exceeding 81%. Meanwhile, the self-confidence indicator scored the lowest at 76.67%, which is still categorized as a positive response since it falls within the 61-80% range. These findings suggest that students generally responded positively to implementing this learning model, although the aspect of self-confidence requires further improvement. A study Nazirah et al. (2023) similarly demonstrated that the project-based learning model supported by peer tutoring positively influences students' creative thinking skills and elicits positive responses.

The learning format indicator 82.17%, demonstrates that students greatly benefited from the implemented learning structure. This is evident from the ease of following the steps to create *jumlah mufidah* with group assistance, the comfort provided by the group division system and the presence of peer tutors, sufficient time to search for references, the convenience of studying in groups outside class hours, and adequate opportunities to present results and receive feedback from lecturers. This

systematic and flexible learning structure has proven effective in supporting students' learning processes.

The relevance indicator reached the highest percentage of 87.50%, reflecting the alignment of the learning process with students' needs. This is evident from the positive responses regarding the alignment of *jumlah mufidah* creation with the *Arabiyah Baina Yadaik* material, the ability to use vocabulary in daily conversations, the benefits of peer tutor explanations, the application of learning to other tasks, and the usefulness of personal notes in improving Arabic proficiency. This high percentage indicates that the implemented learning model suits the student's needs and objectives.

Student interest, which reached 83.67%, indicates high enthusiasm for the implemented learning model. This is reflected in their enjoyment of learning in a new way through creating personal notes on *jumlah mufidah*, their eagerness to ask questions confidently with peer tutors, their interest in collecting new vocabulary, the challenge of crafting sentences for lecturer feedback, and the enjoyment of group discussions with peers. This learning model successfully creates an engaging and motivating learning environment for students. The satisfaction level is 86.17%, which reflects highly satisfactory student learning outcomes. This satisfaction encompasses various aspects, such as contentment with *mufrodat* and *jumlah mufidah* notes as personal dictionaries, success in creating sentences with group assistance, appreciation for lecturer feedback, pride in independently finding synonyms and antonyms, and improvement in Arabic proficiency. This high level of satisfaction indicates that the learning model has met the students' expectations and needs.

Although still in the positive category, the confidence indicator, which reached 76.67%, highlights areas for improvement in implementing this learning model. Students demonstrated confidence in looking up word meanings but still need reinforcement in several aspects, such as using new vocabulary in conversations, having the courage to ask questions, helping peers, and independently constructing sentences in Arabic. This indicates the need for specific strategies to enhance students' confidence in learning Arabic.

These significant results highlight the importance of integrating innovative and interactive teaching models and strategies into the educational process. The Project-Based Learning (PjBL) model provides students with learning experiences by assigning daily tasks that require individual or group problem-solving (Alfalah et al., 2023). Through implementing PjBL, combined with peer tutoring, students gain theoretical knowledge and develop essential skills such as critical thinking, creativity, collaboration, and communication (Siwanto et al., 2023).

In this case, implementing the PjBL model in Arabic language learning is optimized by integrating peer tutoring methods at each stage. In the project determination stage, students are tasked with compiling a personal dictionary (*Mu'jam*) from sentences found in dialogues and reading texts in the textbook. Students search for synonyms, antonyms, and plural forms using dictionaries in the campus library. This project is designed to enrich students' understanding of Arabic vocabulary and language structure through a comprehensive and contextual approach, utilizing the role of peer tutors as learning facilitators within the group.

In the project design stage, the small groups that have been formed engage in intensive discussions led by peer tutors from advanced-level students. The tutors assist their group members in identifying sentences and vocabulary that will be analyzed while also providing an initial understanding of word search strategies and language analysis. The presence of peer tutors in each group allows for more personalized and



The PjBL model allows students to explore problems independently, develop critical thinking through inquiry, design solutions with personal creativity, and produce artefacts or products that reflect their understanding (Blumenfeld et al., 1991). The right combination of the PjBL model with peer tutors who possess the necessary competencies and a collaborative approach can create an inclusive and dynamic learning environment. Students can develop academic, social, and interpersonal skills through peer guidance within the PjBL framework (Touliat et al., 2023).

One of the weaknesses in combining the Project-Based Learning model with the peer tutoring method in this study lies in the potential imbalance of competence between groups. For example, in the implementation of a dictionary-making project, some groups were able to compile vocabulary entries that were complete and relevant. In contrast, others produced only a limited number of entries. This difference occurred because each group tutor had different understandings and perspectives on which types of vocabulary should be included in the dictionary. Another challenge is the uneven level of student independence. Not all students are ready to learn actively and independently, which caused some of them to contribute less effectively to the collaborative and project-based learning process.

Despite its limitations, implementing the Project-Based Learning (PjBL) model and the peer tutoring strategy is expected to serve as an innovative alternative for improving the quality of the teaching and learning process at various educational levels. This model has the potential to offer more meaningful and contextual learning experiences from elementary school to higher education. Through the PjBL approach, students are encouraged to develop critical thinking, creativity, and collaboration skills by working on real-life projects relevant to their daily lives. Meanwhile, the peer tutoring strategy allows for peer-to-peer knowledge transfer, which can enhance conceptual understanding in a more personal and communicative way. The combination of these two methods promotes student learning independence and creates a dynamic, interactive, and collaborative academic environment. The integration of PjBL and peer tutoring can be used to bridge the gap in students' learning abilities.

## CONCLUSION

Based on the discussion in this study, implementing the PjBL model and peer tutoring strategy helps bridge the gap in Arabic language skills among pre-university students at Pondok Hjjah Nuriyah Shabran, Universitas Muhammadiyah Surakarta. This is evidenced by the improvement in the experimental class's minimum pre-test and post-test scores and the increase in the average score for that class. According to the N-Gain results, the experimental class is classified at the "moderate" effectiveness level with a score of 69.07%, while the control class is classified at the "low" level with a score of 29.70%. The difference of 39.37% shows that the effectiveness in the experimental class is greater than in the control class. The T-Test results showed a sig. (2-tailed) value of 0.000, which is smaller than  $\alpha=0.05$ . These findings indicate the success of implementing the collaboration between the PjBL model and peer tutoring strategy in optimizing student learning outcomes. The percentage of student responses and perceptions toward the PjBL model and peer tutoring strategy is considered positive, with an overall average score of 83.23% across indicators (format, relevance, interest, satisfaction, and confidence).

These findings indicate the successful implementation of the collaboration between the PjBL model and the peer tutoring strategy in optimizing students' learning outcomes. The percentage of student responses and perceptions toward the PjBL model and peer tutoring strategy was generally positive, with an overall average across all

indicators (format, relevance, interest, satisfaction, and confidence) reaching 83.23%. Therefore, applying the PjBL model combined with peer tutoring can serve as an alternative to improve the quality of teaching and learning at various levels of education and bridge gaps in Arabic language proficiency among students. This study also opens up broader opportunities for future researchers to explore the implementation of the PjBL model and peer tutoring strategy in Arabic language learning across different topics and materials. Exploring these areas is significant, as it can contribute to the development of more adaptive and inclusive instructional strategies that address diverse learner needs, enhance student collaboration, and optimize engagement in Arabic language learning. However, several limitations still need to be addressed, such as competence imbalances between groups due to differing tutor interpretations of the material and the uneven levels of student independence, which may affect active participation in the project-based learning process.

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