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The Influence of Pbl Learning Models on Learning Outcomes of Language Research Methodology Courses

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Abstract: The ability to solve problems is one of the skills that is very important and needed in the 21st century. The aim of this research is to determine the influence of the PBL model on learning outcomes in language research methodology courses. This research is a quasi-experimental type of quantitative research and the design used is post-test only control. The population of this study were all 5th semester students taking the language research methodology course. The sample in this research is class IIA as an experimental class using the Problem Based Learning learning model and class IIB as a control class using a lecture learning model. Class random sampling technique. The data collected used were learning outcomes tests and self-efficacy questionnaires. The analytical test used is a two-way analysis of variance with unequal cells, with a significance level of 5%, the result is that Ho A is rejected, so is Ho B rejected and so Ho AB is accepted. Based on the research results, it can be concluded that: (1) There are differences in Problem Based Learning learning models on learning outcomes, (2) There are differences between students who have high, medium and low self-efficacy on learning outcomes, (3) There is no interaction between PBL learning model and self-efficacy on student learning outcomes.

Keywords: PBL Method, Language Research Methodology, Learning Outcomes

1. Introduction

The learning process in Indonesia has many shortcomings (including learning methodology courses), one of the weaknesses being the lack of ability to solve students' problems. (Sugiono, 2021) states that the research methodology learning process is considered quality if the learning is challenging, fun, encourages exploration, provides successful experiences, and develops problem-solving skills. This is in accordance with the opinion of (Dermawan, 2018; Fathurohman, et. al 2020; Fathurohman, et. al 2019; Hardiyanti, et. al 2019) who states that the learning process, especially learning research methodology, must prepare quality students, namely students who are aware of literacy, have ethics, attitudes and high-level thinking abilities (*higher order thinking skills*), so that students will emerge who can think critically, think creatively, make decisions and solve problems.

The problem with learning designs developed in Indonesia so far is that they do not require students' problem solving skills in the process of teaching and learning activities, (Tamarudin, et. al 2020; Widianto, et. al 2019). Learning that is generally carried out by lecturers places more emphasis on aspects of knowledge and understanding, while aspects of application, analysis, synthesis and even evaluation (problem solving) are only a small part of the learning carried out. Lecturers should be able to stimulate students to solve problems regarding the language research methodology concepts being studied. Therefore, the reason for choosing the title of this research is to describe and test the effectiveness of the PBL model with the lecture learning model in learning language research methodology. The aim of this research is as follows to obtain a description of student learning outcomes in language research methodology courses, and describe how big the influence is. Application of the PBL learning model to student learning outcomes, (Fathurohman, et. al 2020; Kara, et. al 2020; Kanzunnudin, et. al 2019; Mujiwanto, et. al 2019; Purnaningtyas, et. al 2020).

The solution to solving student problem solving systems is the application of learning models that can develop students' thinking abilities, especially problem solving thinking. The learning model applied is the PBL learning model. According to (Palupi et al. 2020; Fathurohman, 2020; Kara, et. al 2020; Purnaningtyas, et. al 2020) the PBL learning model is an innovation in complex learning to instill creativity, problem solving and critical thinking. The PBL learning

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model has a constructivist, critical and collaborative character, problem-based, finding alternative problem solutions that complement each other. The constructivist character of the PBL learning model requires students to be able to formulate hypotheses, test hypotheses, manipulate objects, solve problems, dialogue, research, search for and find answers, express ideas, uncover questions, and hold reflections. The constructivist character of this learning model has the potential to train critical thinking skills and find solutions to problems as well as increase students' mastery of methodological knowledge. The character of PBL allows students to work together, learn from each other to solve problems and discuss in groups to find alternative solutions, so as to equalize student learning outcomes and reduce gaps in student learning outcomes.

According to (Darmuki et al., 2023; Ahsin, et. al 2020; Angelia, et. al 2020; Arukah, et. al 2020) stated that learning using the Problem Based Learning (PBL) model is learning, authentic investigation, collaboration, and producing work and demonstrations so that learning is not only about acquisition using authentic problems that are not structured and are open to developing critical thinking skills and able to build new knowledge. In line with the opinion above, (Azizah et al., 2019; Arukah, et. al 2020; Dewanti, et. al 2020; Endiawan, et. al 2020) stated that the Problem Based Learning learning model is a learning approach that uses real world problems as a context for students to learn about critical thinking and problem solving skills, as well as to gain knowledge. and concepts in the learning material being studied.

According to Utami et al., (2009) Problem Based Learning learning steps consist of 5 stages, namely 1) orienting students to the problem, 2) organizing students to learn, 3) guiding investigations, 4) developing and presenting work results, 5) analyzing and evaluate the problem solving process. Learning using the Problem Based Learning learning model has been proven to be able to explore students' potential in using their critical thinking skills in solving problems given by lecturers (Santyasa et al., 2020; Ramadhani, et. al 2020; Satria, et. al 2020; Septaningsih, et. al 2020).

2. Structure of References

The research conducted by the author used several study reviews as a theoretical basis and also as a comparison with previous research that had been conducted. The study review conducted in this research involved several different sources. The previous research that served as a reference was research on the learning outcomes of language research methodology for PBSI semester 3 students. Therefore, the researcher carried out study steps on several previous studies in the form of articles and journals available via the internet. The comparison in this research will focus on the practical drill method used.

Based on the research that has been carried out, several relevant studies were found that discussed the film media method for improving reading skills, namely: The first was conducted by (Jati Indah Kusumaning, et al. 2018) entitled "*effectiveness of using the practical drill method in learning kanji*". Based on the percentage carried out, the ability to learn kanji using practical drills has increased from previous results. So it can be concluded that the practical drill method can be an alternative to overcome problems with the results of kanji learning.

The two studies were conducted by (Shobirin Muhammad, 2021) entitled "*Application of the Drill Practical Method to improve the ability to write advertisements in class V students at SDN Bendo*". The results of the research show that the practical drill method is effective in improving writing skills in fifth grade students at SDN Bendo, Rembang district. The results of the research show that (1) The results of observations on the teacher's activities in implementing learning activities to write advertising essays using the drill and practice method, the initial cycle average was 2.36 in the first cycle to 2.40 after the second cycle was implemented, it was 4.16, there was an increase of 1.76. (2) The results of observations on student activities during the implementation of advertising essay writing learning activities using the drill and practice method averaged 4.60% in the first cycle in the first cycle to 7.70% after the second cycle was carried out at 9.15%, an increase of 9.15%. 1.45%. (3) The results of the training and practice learning activities in writing advertising essays, the level of mastery of students' skills in writing scripts at the beginning of the cycle was 9.09% in cycle I to 18.18% after the implementation of cycle II, which was 54.54%, an increase of 36.36%.

The third research from (Adiwisastra Miftah Farid, 2015), which is titled "*Designing an Interactive Quiz Game as Multimedia for Practical Drill Learning to Improve Student Learning Outcomes*". The research results show that the use of drill and practice multimedia learning techniques through interactive quizzes can improve student learning achievement. After conducting an assessment using a questionnaire, almost all students gave positive responses to this drill and practice multimedia learning model. They consider that this type of learning is beneficial, interesting, and able to improve student learning outcomes.

3. Research Methodology

Equivalents. This research design consists of a control group using conventional learning with lectures while the experimental group uses PBL learning. Both groups were given a posttest (Sugiono, 2018). The population of this study were all 5th semester students of PBSI FKIP UMK and 5th semester students of PBSI FKIP UMM. Samples were taken by random sampling, with 1 class at PBSI FKIP UMK totaling 28 students as the experimental group and 1 class at PBSI FKIP UMM totaling 32 students as the control group.

The methods used to collect data are tests, documentation and observation. The test method is used on a set of stimulus answers that can be shown in numbers. Data collection with tests is a series of questions or exercises used to measure knowledge skills, intelligence, abilities or talents possessed by individuals or groups (Budiyono, 2017). The test method is used to measure students' problem solving skills. The test developed in this research is in the form of essay questions.

Documentation techniques are carried out by collecting data in the form of notes and reviewing data documents related to the research object. The data collected using this technique is previous semester test score data as reference material used to determine the balance of students' initial abilities in the research population.

Observation technique involves direct observation of the research object to see closely the activities carried out (Budiyono, 2004). The observation instrument is used to see the implementation of the syntax of the PBL learning model implemented in the class supervised by the observer. The object of observation covers the entire process of teaching and learning activities in the classroom including lecturer and student activities as well as classroom conditions during the learning process.

Data analysis uses descriptive statistical analysis to narrate the data that has been collected, namely the profile of problem solving skills of 5th semester students of the PBSI FKIP UMK and UMM study programs. Inferential statistical analysis is used to test hypotheses. Hypothesis testing in this study used an independent two-sample t-test at a significant level (α) = 0.050, using the program *SPSS version 16.* Before carrying out the t-test, a prerequisite test is first carried out, namely the normality test using a test *Kolmogorov Smirnov* and test homogeneity using the test *Levene's.* The criteria used in making hypothetical decisions are H_0 rejected if the probability significance (*Say.*) < α (0.05). This also applies vice versa, namely if the significance of the probability (*Say.*) > α (0.05), maka H_0 accepted (Budiyono, 2004).

Assessment of problem solving abilities uses a test method in the form of essay questions. The instruments to be used will be tested for validity and reliability. Before being used to collect research data, the test instrument is tested for validity and reliability to determine the quality of the question items. Validity is the accuracy and thoroughness of an instrument in carrying out its measuring function so that its quality can be seen (Sugiono, 2011). Valid means that the instrument can be used to measure what it is supposed to measure. The validity test in question is testing the instrument (measuring instrument) whether it really complies with the methodological material in the learning process.

Internal validity can be measured through review by experts or by testing it on a number of individuals outside the sample but still in the population. The internal validity of the instrument in this study was tested by expert review. Validating experts are language experts and learning experts.

External validity is tested by comparing the criteria in the instrument with empirical facts that occur in the field (Sugiyono, 2011). External validity is carried out by testing (*try out*) instrument on a sample of the study population. Validity can be sought by correlating a student's overall score in one item (X) with the overall score obtained by all students (Y) through correlation techniques *product moment Pearson.*

Nilai r_{XY} then used in calculations in the t-test. The t-test is used because the respondents used in testing the instrument are samples, so generalization is needed to the population so that it can be considered to represent all the characteristics that exist in the population (Budiyono, 2004). The next step is to look at the distribution (Table t) for the significance level (α) = 0.05 and the degrees of freedom (dk= N-2). This comparison produces a test decision, namely if $t_{count} < t_{table}$ then the question item is invalid, whereas if $t_{count} > t_{table}$ then the question item can be declared as a valid question. Even though it was tested repeatedly (Arikunto, 2009). Test questions are said to be reliable if they give the same results but at different times. Reliability testing for test instruments and questionnaire items uses tests *Alpha Cronbach*.

The procedure in this research consists of the stages below

The planning stage begins with preparing the learning tools used in the treatment stage. The planning stage includes preparing a research proposal, preparing learning tools in the form of preparing a Semester Program Plan, Learning Implementation Plan (RPP) using the PBL learning model, and finally preparing data collection instruments.

The treatment stage is the stage of providing treatment to the subject. This stage includes preparing a research proposal, preparing research instruments (Semester Program Plan and RPP), the learning process in the class is given treatment by applying the lecture method and in the experimental class it is given treatment in the form of applying the PBL learning model. Observations were carried out by three people to monitor the implementation of the PBL learning model syntax using an observation sheet instrument, then held *post-test.* The analysis stage is carried out after obtaining data in the field. Analyze the calculation data using the program *SPSS.*

4. Result and Discussion

The aim of this research was to determine the effect of implementing the PBL learning model on student learning outcomes. The PBL learning model was carried out in the experimental group in class IID with a total of 38 students, while the control group in class IIA with a total of 36 students used the lecture method. Class IID as the experimental group and class IIA as the control group were carried out separately *cluster sampling* Previously, a balance test had been carried out on the entire population of level II of the Indonesian Language and Literature Education Study Program, Muria Kudus University and Muhammadiyah University of Malang for the 2023/2024 Academic Year. Learning outcomes ability test *(posttest)* The two groups treated with different methods were compared, so that it could be seen whether there was an influence of the application of the PBL learning model on students' learning outcomes.

Data on students' critical thinking abilities in learning the Language Research Methodology course was obtained from the results of written tests in the form of essay questions after the learning process *(posttest)* in material on means of scientific thinking with Basic Competencies, namely explaining the use of deductive scientific thinking and inductive thinking in gaining knowledge. The description questions consist of 6 questions covering aspects of critical thinking according to Hohmann & Grillo (2014) which include: *interpretation* (interpretation), *analysis* (analysis), *inference* (conclusion), *evaluation* (evaluation), *explanation* (explanation), and *self-regulation* (self-regulation). The results of the distribution of student learning outcomes through the PBL learning model in the experimental group and the lecture method in the control group can be briefly seen in the table below.

Table 1 - Distribution of ability learning results.

Interval Value	Control Class Frequency	Experimental Class Frequency
45-52	8	0
53-60	4	3
61-68	11	7
69-76	4	6
77-84	6	15
85-92	3	4
93-100	0	3
Amount	36	38

The table above shows the frequency of each value interval in the control group and experimental group. The highest frequency of the control class lies in the value 61 to 68 with a frequency number of 11. The highest frequency of the experimental group is in the interval of value 77 to 84 with a frequency number of 15. Table 1 shows that the level of ability scores for the experimental group students' learning outcomes is higher than the ability learning outcomes control group students. A brief description of student learning ability data results can be seen in the table below.

Table 2 - Description of student learning ability data results.

Statistical Results	Control Group	Experimental Group
Rate-Rata	66,81	78,62
Standard Deviation	13,22	9,76
Variance	156,132	78,822
Minimum	45	58
Maximum	87	93
Median	64,60	78,25
N	36	38

Table 2 shows that the average learning ability test results for students in the experimental group are higher than those in the control group. The control group average was 66.81 while the experimental group average was 78.62. The greater the standard deviation, the more heterogeneous the data, conversely, the smaller the standard deviation, the more homogeneous the data. The standard deviation of the control group is 13.22 and the standard deviation of the experimental group is 9.76.

The variance for the control group was 156.132 while the variance for the experimental group was 78.822. This situation shows that the standard deviation and variance in the control class are higher than the experimental class, meaning that the level of diversity (variability) in the control group is greater (Budiyono, 2017). These results can be said descriptively that the learning ability test results of experimental group students are better than those of the control

group. Based on the table above, it can be seen that the average learning achievement score for the experimental class using the PBL learning model is higher than the control class using the lecture method.

A comparison of the average scores for each aspect of learning outcome abilities in the control group and the experimental group can be seen in table 3. Briefly and in full, it can be seen below.

Table 3 - Comparison of average values of learning outcome abilities .

Class	Interpretation	Analysis	Evaluation	Conclusion	Explain	Self-Regulation
Experimental Class	84,026	84,026	78,368	76,789	84,158	59,947
Control Class	90,250	48,444	67,889	62,333	60,667	53,444

Table 3 shows that the experiment tends to be higher than the control group. The experimental group excelled in five aspects including aspects *analysis* (analysis), *inference* (conclusion), *evaluation* (evaluation), *explanation* (explanation), and *self-regulation* (self-regulation) while the control group excelled in only one aspect of learning outcomes, namely aspect *interpretation* (interpretation).

Ability of control group learning outcomes in aspects *interpretation* amounting to 90,250, higher compared to the experimental group, namely 84,026. Aspect value *analysis* in the control group it was 48,444 which was much lower compared to the experimental group, namely 84,026. Aspect value *evaluation* in the control group it was 67.889, while the score in the experimental group was higher, namely 78.36. Aspect *inference* in the control group was also lower than the experimental group, namely 62,333 for the control group and 76,789 for the experimental group. Aspect value *explanation* the control group was 60,667 which was lower compared to the experimental group of 84,158. Aspect value *self-regulation* in the control group it was 53.444 which was lower compared to the value in the experimental group which only reached 59.947. The highest average aspect of critical thinking ability in the experimental group lies in the aspect *explanation*, while for the control group it lies in aspects *interpretation.* The lowest average aspect of learning outcomes in the experimental group lies in aspect *self-regulation*, while for the control group it lies in aspects *analysis.* Based on the average difference in thinking ability

critical difference between the experimental group and the control group for each aspect, the order from the largest difference to the smallest is the aspect *analysis* amounting to 34,582, *explanation* amounting to 22,491, *inference* amounting to 13,456, *evaluation* amounting to 9,480, *interpretation* amounting to 9,224, and *self-regulation* amounting to 5,503. Based on table 3, it shows that the application of the PBL learning model is able to improve student learning outcomes.

Normality Test

Testing assumptions as a prerequisite for analyzing differences in two treatments with the t test (*t test*) it is necessary to test the prerequisites statistically. T test analysis requires analysis prerequisite tests, namely the normality test and homogeneity test. The first condition that data can be tested for t is that the data must be normally distributed. The normality test aims to determine whether the control group and experimental group come from a normally distributed population or not. H_0 it is stated that the sample comes from a population with a normal distribution and H_1 it is stated that the sample does not come from a normally distributed population. Test the normality of the data from the ability test results of student learning outcomes in the control group and experimental group using the test *Kolmogorov-Smirnov* with $\alpha = 0.050$ which is assisted by the SPSS 16 program. The results of the normality test, when the value *Say.* from the normality test is greater than the set α level value of 0.050 (*Say.* >0.050). If the value data *themselves.* from the normality test is greater than α (*themselves* > 0.050) eyes, H_0 accepted so it can be said that the data is normally distributed. The normality test results can be seen briefly in the table below

Table 4 - Results of the normality test for learning outcomes.

	Kolmogorov Smirnov	KS_{Table}	N	Say	Results	
					Information	Decision
Control	0,106	0,226	36	0,808	Say > 0.05	Normal
Experiment	0,076	0,220	38	0,454	Say > 0.05	Normal

Table 4. shows that the value (*themselves.*) > 0.05, until the results of the H $test_0$ accepted and it can be concluded that the data in the control class and experimental class are normally distributed.

Homogeneity Test

The second condition that must be met before carrying out a t test is that the data must be homogeneously distributed. The homogeneity test aims to determine whether the variance between the control class and the experimental class is homogeneous or heterogeneous. Homogeneous means that the data between the experimental class and the control class have the same variance or are homogeneous. Testing the homogeneity of learning outcomes is carried out using tests *Levene's* with $\alpha = 0.05$ and assisted by the SPSS 16 program. The variance between the control class and the experimental class is declared homogeneous if the significance value shown is more than 0.05 (*themselves*>0.05) and declared heterogeneous if the indicated significance value is less than 0.05 (*themselves*<0,05). H_0 It is stated that each class has the same variance (homogeneous). H_1

It is stated that each class does not have the same variance. The results of the homogeneity test data on student learning abilities can be seen briefly in the table below.

Table 5 - Results of the homogeneity test of student learning outcomes.

	N	df1	df2	F_{Count}	F_{Table}	Say	Decision Uji H_O
Critical Thinking Ability	74	1	70	3,783	3,874	0,052	Accepted

The table above shows that the price of F_{count} of 3,883 and price $F_{table(0.05)(1)(72)}$ amounting to 3,974.

The results of these calculations show that $F_{count} < F_{table(0.05)(1)(72)}$ and the significance value for the homogeneity test is more than 0.05. The results of these calculations show that H_0 accepted, so that the learning outcome ability values in the control class and experimental class are homogeneous. The requirements for research hypothesis testing for student learning ability test results data have been fulfilled, namely that the data comes from a population that is normally distributed and has homogeneous variance, so that parametric research hypothesis testing via the t test can be carried out.

Hypothesis test

Hypothesis testing in this research was carried out using the t-test assisted by the SPSS 16 program. The purpose of the two-sample t test is to compare whether the two data (variables) are the same or different (Sugiono, 2011). The prerequisite test results show that the data from the ability test results are normal and homogeneous, so the prerequisites for carrying out the t-test have been fulfilled. The criterion used in making hypothesis decisions is the significance level (α) = 0.05. H_0 rejected if the probability significance (*themselves*) < α (0.05). This means that if the significance of the probability (*themselves*) < 0.05, then the null hypothesis (H_0) is rejected and vice versa if the probability significance (*themselves*) > 0.05, then the null hypothesis is accepted. H_0 In this study, it was stated that there was no difference between the application of the PBL learning model and the application of the lecture method on learning outcomes, while H_1 stated that there is a difference between the application of the PBL learning model and the application of the lecture method with varied presentations on student learning outcomes. The results of the analysis of the effect of implementing the PBL learning model on student learning outcomes through the t test can be briefly seen in the table below.

Table 6 - T-test results of the influence of the PBL model on learning outcomes.

Variable	N	df	t_{count}	t_{table}	Say	Information	Decision Uji H_O
Learning outcomes	74	72	4,485	1,993	0,00	Say > 0.01	Rejected

The table above shows the results of the test decision that the significance is less than 0.05, namely 0.00 < 0.05. Based on these results, a decision can be made that H_0 which states that there is no real difference between the application of the PBL learning model and the application of the lecture method with varied presentations on the ability of student learning outcomes to be rejected and accepted H_1 which states that there is a very real difference between the application of the PBL learning model and the application of the lecture method with varied presentations on student learning outcomes. This shows that the application of the PBL learning model has a very real effect on student learning outcomes because the significance value is less than 0.01, namely 0.00<0.01.

Based on the results of this research, lecturers need to adapt student learning needs to learning strategies. The choice of learning model to be used by a lecturer is determined by the characteristics of the learning material and learning objectives to be conveyed, the ability to meet student learning needs, and the ability to increase student learning capacity to optimal limits (Arifmiboy, 2018). In line with the views of (Arend, 2018: 111), it is impossible for there to be one teaching model that is considered superior for all educational purposes. In reality, each teaching model is often only

suitable for certain types of learning, however these models can also be combined to help students achieve learning goals (Suryanti et. al., 2020: 76). No single approach is consistently better than another.

Implementation of the PBL learning model related to learning outcomes *PBL* can be used as a reference. Previous research results show learning outcomes with *PBL* more effective than traditional in improving academic achievement (Sahin, 2010; Evcim & Ipek, 2013; Wilson et.al., 2017; Hoerunnisa et.al., 2017; Subiyantari et.al., 2019). A study on the effectiveness of learning outcomes also concluded that PBL learning had the most positive impact on achievement variables (Darmuki, et al., 2017).

The results of research using the PBL discovery model are better than traditional teaching methods in terms of academic achievement (Nuryakin & Riandi, 2017). Other research results show that students achieve better in understanding the content of learning through *PBL* compared to the lecture method (Rahmadani et.al., 2017; Rambe et.al. 2018).

This PBL learning model has the potential to increase students' social interactions in learning language research methodology. Social interaction is important considering the different characteristics of students in class (Darmuki & Hariyadi, 2019). The practice of using the PBL model is to carry out scientific work in groups to solve problems, so that this model is able to close the gap between upper and lower academic students, tension caused by differences in student backgrounds, as well as being able to reduce the negative impact of competitive learning which gives birth to unhealthy competition (Sahin, 2010; Gunawan et.al., 2020). Student interaction in the PBL group is to discover concepts or facts through stages of scientific work, while in the PBL group social interaction is encouraged in intense presentation and discussion activities to build a complete conceptual understanding of language research methodology.

A literature review of studies on classroom learning reveals that the application of learning models using the PBL method is more effective (Leyva & Riu, 2016; Yemi et. al., 2018; Subiyantari et. al., 2019(Jigsaw); Rambe et. al., 2018 ; Wardono et.al., 2020; Winarni et.al., 2020) Previous scientific studies conducted by (Darmuki & Hariyadi, 2019) in the form of classroom action research in classroom learning using the PBL learning model can maximize student learning outcomes. Learning strategies which include learning models applied by lecturers in teaching and learning activities will influence the success of learning objectives. The lecturer's ability to apply learning models will make it easier for students to receive learning (Darmuki et al., 2018).

The weakness of this research is that the learning process in the classroom lies in the lecturer's commitment when implementing the PBL learning model, where this learning model requires more preparation from lecturers than the lecture learning model. Apart from that, another weakness during the learning process is that students lack a competitive atmosphere so that there are some students who dominate learning in class even though in the end all students are actively learning. The strength of this research lies in social interaction in learning and students' needs in learning so that it can build a complete understanding of students' concepts regarding language research methodology. The application of the PBL learning model in this research is proven by the PBL learning model applied by the lecturer in the language research methodology course, it turns out that students find it easier to understand language research methodology so that student competence regarding language research methodology is better.

Table 7 - External status promised.

No	External type	Achievement targets	information
1	Publication articles in the journal Sinta 2 (Jurnal Kembara)	Sinta 2 accredited journal	Review
	Publication articles in the Sinta 2 journal (ELEaL Journal)	Sinta 2 accredited journal	Review
	Publication articles in the journal Sinta 4 (Jurnal Educatio Unm)	Sinta 4 accredited journal	Review

5. Conclusion

The results of this research are very important for learning the Language Research Methodology course. PBL has a positive influence on student success and the effectiveness of learning in the classroom. It can be concluded that PBL is more effective than the lecture model because it is able to increase students' understanding of language research methodology courses in the Indonesian Language and Literature Education Study Program. This research provides an overview to students, lecturers and academics about improving the quality of the learning process and learning outcomes when the PBL model is applied in the classroom. This cannot be separated from the role of lecturers, students, appropriate learning models or methods in producing good learning outcomes, and other factors. Further research is needed to test the practicality and effectiveness of PBL and other learning models to determine student learning outcomes in language research methodology courses. The implication of this research is to provide understanding to lecturers to improve learning outcomes by implementing the PBL model and emphasizing problems through activities that are suitable for students.

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Conflict of Interest

The authors declare no conflicts of interest.

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