

The Implementation of Problem-Based Learning to Improve Students' Competence in Writing Research Proposal in English Department, Faculty of Humanities, Andalas University

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Abstract. This paper provides an exploration of the implementation of problem-based learning in a third-year literary research methods course with 44 (8 Male and 36 female) students, focusing on the factors that may increase or hinder its effectiveness. The research follows a qualitative approach by examining a case study to gain insight into the participants' experience. Data were collected through surveys, interviews and observation, and analyzed with qualitative and quantitative data analysis techniques. This research was conducted in two cycles, each of which consists of four stages of planning, action, observation and reflection. The outcomes of the study indicate that the main strengths of the course were teamwork, self-directed learning, continual assessment, practical approach, while the main weaknesses were the disorientation experienced by the students at the start of the problems and the uneven participation of group members in the group tasks. From our experience, we can conclude that PBL adapts well to a practical approach towards learning structures. The main shortcomings identified have been associated with poor implementation of certain key PBL principles. Improvement actions should aim at (a) reinforcing the tutor's role and (b) paying greater attention to the learning process.

Keywords: Problem-based learning, research proposal, motivation, student's behaviors.

1. Introduction

Education is one of the main components in improving the quality of human resources of a nation, including Indonesia. To be able to improve the quality of Indonesian human resources, the government needs to create an integrated educational process, one of which is through improving the quality of Indonesian education. To achieve this, the government (DIKTI) calls for higher education in Indonesia to refer to UNESCO's appeal for education. UNESCO has introduced four pillars in learning: learning to know, learning to do, learning to live together, and learning to be. According to UNESCO, learning is not just knowing but also doing and practicing what is known. After doing something with certain skills, learners must be able to benefit others, and then be themselves in order to complement each other and work together.

The problem that always arises in the world of education, including lecturers in higher education is how a learning process is designed and implemented. In universities, lecturers mostly determine the learning process. Lecturers' performance determines the quality of education in carrying out their profession as a teacher, starting from designing, compiling, choosing methods, implementing and evaluating. Lecturers are always challenged and demanded to be able to find the right format and implement tactical strategies in the classroom to be able to achieve the learning outcomes.

Therefore, the lecturers must be able to find the best way to manage their courses in order to achieve the learning outcomes. In this case, the role of lecturers is not only at the level of design and learning process but also at the way they communicate with the students so that they can achieve the learning outcomes. They need to do this professionally, especially in finding approaches and learning strategies that are appropriate to the specific characteristics of the subjects they are capable.

Literary Research Method is one of the courses in the English Department at the Faculty of Humanities of Andalas University whose role is very important in opening up the horizons of students to literary research and analysing the literary works such as prose, poetry, and drama. For about three years, students have studied literature alongside writing skills, which should have been sufficient in conducting literary analysis. This learning should be able to get the department's learning outcomes that students are able to interpret fiction and show its relevance to human life. The students generally learn from reference books, handouts and power point presentations. In the classroom, the teaching method used is a mixture of lectures and assignments, most of which are done independently outside the classroom. There are no formal examinations in this class. Independent assignments replace mid-semester test and final semester test. Lecturers put the students in class and group discussions to understand the subject matter and help students' comprehension. In the classroom, students have not shown independence in understanding and doing assignments. However, from observing the length and quality of the research proposal and then writing the student thesis, the researchers concluded that many students did not have good writing skills and the ability to conduct research in order to complete their research. Therefore, teaching Literary Research Methods needs to be improved so that is in accordance with the needs of students and they can be responsive to the development of society as well as always ready with critical and alternative thinking to answer the challenges.

The teaching of literary research methods at universities serves to improve the ability to think, behave, and interact in the diversity of literary realities. The learning objectives of the course in universities basically cover cognitive, affective and psychomotor areas. Cognitive teaching is intended to provide basic knowledge of literary research to students in order to be able to comprehend and examine the components of literature rationally. Meanwhile affective targets are intended to develop students' rational and critical attitude and behavior skills in dealing with literary issues. Psychomotor elements are other aspects that will make students able to create and solve literary problems through certain skills.

Both lecturers and students often pay more attention to mastering knowledge than having good attitudes and skills. Often times, the students are happy when lecturers only explain and they listen and take notes. The lecturers at certain levels are also carried away with this situation where demands for students to be independent and master certain abilities are ignored. The lecturer's and student's satisfactions are more on cognitive aspects with good grades. If this continues, the students might not be able to learn independently with inadequate attitudes and abilities that they will later bring to the society. The students are able to

memorize certain literary concepts in an academic dimension, but do not have the ability to solve problems.

Problem-Based Learning (PBL) is a learning approach that uses real world problems as a context for students to learn about critical thinking and problem solving skills. PBL should be relevant to create learning that can develop students in their entirety, including in learning literary research methods, especially in making research proposals. With PBL approach, the class of Literary Research Methods will be interesting because the object being studied is a real world situation that is closer to student life. In addition, the material learned will move students to think at a higher level, and naturally will encourage students to learn to solve problems naturally both individually and in groups.

The problems of this study include whether PBL approach in the Literary Research Methods class of the Department of English Literature at the Faculty of Cultural Sciences Andalas University in 2018/2019 can improve the students' ability to write research proposals and how changes in behaviour accompany the improvement in learning to write proposals research through PBL approach.

Barrows [1] defines PBL as learning that comes from the process of working towards understanding the resolution of a problem found in the learning process. In this method, learners and teachers manage complex learning in the two parties' contexts [2]. This method is among the other models introduced by Fogarty [3] in various classrooms. Ibrahim and Nur [4] said "Problem-based learning is also known as Project-Based Learning, Experience-Based Education, Authentic Learning, and Anchored Instruction (Learning rooted in real life)."

PBL model is part of the inquiry learning method in which cooperative element is included. In this method, the learner needs to take the initiative to learn so that he can achieve good learning outcomes. For that they need to be fully involved, in other words, learners conduct experiments [5]. This model according to Barret [1] has four main characteristics of PBL, namely: 1) problems, 2) PBL tutorials, 3) PBL processes, and 4) learning.

The theory develops and introduces the existence of personal involvement, self-initiative, self-evaluation, and the direct impact that occurs on students. According to this theory, learning must be done by learners, whereas teachers are only as facilitators. The main task of a teacher or educator is to create a good learning environment, help learners formulate learning goals, balance intellectual growth with emotional growth, provide learning resources, and share feelings and thoughts with learners but do not dominate [6].

Its open nature, democratic processes, and active student roles characterize the learning environment and management system in PBL. Although teachers and students carry out structured and predictable stages of learning in PBL, the norm around learning is the norm of inquiry that is open and free to express opinions. The learning environment emphasizes the central role of the learner, not the emphasized teacher [7].

The characteristics of PBL method include: the emerge of problems from students or instructors, submission of problems or questions, and product generating, works, or problem solving through cooperation in small groups or large groups. This method goes through a few steps: the preparation phase which includes the selection of material, instructional objectives, and group formation; the emergence of problems phase; problem Investigation and inquiry phase; and presentation of results.

Students must complete a research proposal in order for them to conduct a research for their bachelor's thesis. The research proposal bridges the relationship between research and thesis writing, which is different from what students of literature have done before. Research proposals require students to understand how to conduct research, the writing of effective

research proposals and the measures in their writing. Proposals will help to justify and plan research projects, to indicate how these projects contribute to existing research, and to show supervisors that students understand how to conduct research in their field of studies within the given time. The research proposal generally consists of several parts, namely: title, abstract, background, issues, research objectives, literature review, research methods, research significance, and bibliography.

2. Methods

This research was performed in a class of Literary Research Methods at English Department of Faculty of Humanities, Andalas University, Padang, Indonesia in 2019. The research subjects were students taking the class, a total of 44 students. Data collection instruments consisted of two forms, the test instrument and non test instrument. The test instrument was used to determine the level of writing ability shortly after the learning process of the research proposal. There were 3 non-test techniques chosen, namely observation, interview, and surveys. Interviews were used to find out students' responses and attitudes in implementing PBL approach, the cause of students being less able to participate in the learning process, and motivation that made students eager to follow PBL approach process. Surveys were used to identify various symptoms that appeared when applying the PBL approach, both forward and backward, to make improvements in the next cycle.

Data Validity

Learning outcomes (test scores) are validated by test instruments to determine theoretical validation and empirical validation (qualitative and quantitative analysis).

Data Analysis

The data of this study were analysed with descriptive analytic techniques:

- a. Percentage descriptions are used to process quantitative data. The average value obtained by students will be sought to find the level of understanding of research proposals in studying Literary Research Methods. Percentage values (PV) are calculated by using the following formula:

$$PV = \frac{CV}{R} \times 100\%$$

PV = Percentage Value

CV = Cumulative Value

R = Number of respondents

- b. Qualitative data derive from observations, interviews and surveys which are grouped based on the focus of the analysis. Both quantitative and qualitative data are then used to describe the successful implementation of the PBL approach, which is characterized by an increased understanding of the concept of literary research methods in learning to write research proposals, and changes in behavior that accompany them.

Research Procedure

The research was carried out in 4 stages, namely (1) planning, (2) action, (3) observation, and (4) reflection. The action of this research was carried out in two cycles. After reflection which included an analysis and assessment of the action process, researchers saw the emergence of problems or new thoughts so that it needed to be re-planned, re-observed, re-acted and re-reflected.

The first cycle aimed to determine the level of understanding of the concept of writing a research proposal in the study of Literary Research Methods, which was then used as reflection material to take action on the second cycle. Whereas, the second cycle was carried out to seek for the increased understanding of the concept of writing research proposals after an improvement was made to the implementation of learning based on the reflection of the second cycle.

Conclusions were drawn on the basis of changes in test and non-test results between the 1st cycle to the next one. From the change in test results, it showed a significant positive increase, which means an increase in learning outcomes. It was necessary to reflect and improve the implementation of the learning model applied between the next cycle. While the changes in non-test results from interviews, questionnaires and surveys, reveal whatever they were according to the results that have been collected as a comparison between the first cycle and the next cycle.

3. Results and Discussion

The analysis shows that the application of PBL model can improve student's learning outcomes. The research indicates such an indication that the ourcomes increase continuously.

Table 1. Pre-cycle Learning Outcome

2018	
Average	82.17
Number of Completion	30 out of 44
Percentage of Mastery	67%

Based on the class of last year, learning process could only produce 30 out of 44 (67%) students with grades 80 and above (the supposed passing grades in 2018 was 80 and now grade 75). It was supposed to have 75% or more students to get a grade of 80 and above for three assessments (assignments, practices and proposals) as shown in table 1. Eight (8) students even failed to complete their course due to several reasons, including being unable to complete assignments, practices and/or writing a proposal assigned.

Table 2. Learning Outcomes of Material Comprehension

Criteria	1 st Cycle	2 nd Cycle
The Highest Score	80	84.7
The Lowest Score	50	56.3
Average	70	78.7
Total Participant	39	38
Students Completed	27	34
Learning Mastery	70%	89%

Based on Table 2, it is known that the learning outcomes (LO) of students' understanding of the subjects have increased in each cycle. In the preliminary test, the percentage shows the result of 67% which means that there are no students who have completed it. This is because the students have not learnt the subjects yet. After conducting action in the first cycle, a percentage of LO obtained was 70%. From the results of the first cycle analysis, the learning process with the application of PBL has not reached the criteria of 75% completeness, so it can be said that the cognitive learning outcomes of students in the first cycle has not been successful. This is because students are still confused and have difficulty in working on the worksheets provided.

Therefore, by referring to the results reflected from the first cycle, the lecturers made an effort to improve the learning process in the second one. In this cycle, a percentage of LO obtained is 89%. Improvement of cognitive learning outcomes from cycle I (70%) to cycle II (89%) is equal to 19%. This happens because participated students complied with learning better and understand the subject they have received.

The learning process in the second cycle was complete because it met the mastery learning criteria for 89%. Based on data of student learning outcomes, they show that the application of PBL learning models can improve student learning outcomes in the writing the subject of research proposals.

Table 3. Results of Research Proposal Writing

Criteria	Pre-test	1 st Cycle	2 nd Cycle
The Highest Score	80	80	81.6
The Lowest Score	50	47	53.3
Average	67.8	73.5	77.2
Total Participant	41	43	38
Students Completed	24	21	30
Learning Mastery	58.5%	48.5%	78.9%

Based on Table 3, it is known that the learning outcomes (LO) of students' skills in writing research proposal have increased from the first cycle to the second one. In the preliminary test, the percentage shows the result of 58.5% which means that there are no students who have completed it. After conducting action in the first cycle, a percentage of LO obtained was 48.5%, which was lower than that of the previous year. It might happen because the students of this year are new to the method. From the results of the first cycle analysis, the learning process with the application of PBL has not reached the criteria of 75% completeness, so it can be said that the psychomotor learning outcomes of students in the first cycle has not been successful.

Therefore, by referring to the results reflected from first cycle, the lecturers made an effort to improve the learning process in the second cycle. In this cycle, a percentage of LO is obtained 78.9%. Improvement of psychomotor learning outcomes from cycle I (48.5%) to cycle II (78.9%) is equal to 30.4%. This happens because participated students complied with learning better and understand the subject they have received.

The learning process in the second cycle was complete because it met the mastery learning criteria for 75%. Based on data of student learning outcomes, they show that the application of PBL learning models can improve student-learning outcomes in the writing of research proposals.

Table 4. Result of Learning Activities

No	Observed aspects	1 st Cycle	2 nd Cycle
1	Asking the lecturers about teaching material	50.5	41.5
2	Taking tools and learning materials	78.5	51.5
3	Reading and understanding the questions (problems)	92	71
4	Discussing in groups to answer the questions	78	69
5	Answering the questions based on time limit	84	58
6	Presenting the result of group discussion	39.5	44
7	Answering the questions by lecturers and other students	51	46.5
8	Responding to presentation of discussion result from other groups	40	40
9	Attempting to use tools and learning materials provided	72	67
10	Taking important notes related to learning materials	70.5	70
11	Reflecting and concluding the process of problem solving	83	98
Average		67.2	59.7

In the first cycle, the highest score the students get for aspects of reading and understanding the questions (problems) which is equal to 92, while the lowest score is obtained for aspects of presenting the result of group discussion as equal to 39.5. The low score of the aspect communicates the process of the failure because the students are new to the method. From the learning outcomes obtained, a solution is carried out which is to motivate students to be more serious during practices and guide all students to be more active in the learning process.

In the second cycle, the highest score students get for the aspect of reflecting and concluding the process of problem solving is equal to 98, while the lowest score is obtained for the aspect of responding to presentation of discussion result from other groups equal to 40. The low score of the aspect communicates the students' low attitudes towards communication, which was generally low among the students.

From the results of the analysis of each aspect of learning outcomes presented in Table 4, it is known that from the first cycle to the second cycle, there has been a decrease for almost all aspects between ten to twenty five points. While 2 aspects remain relatively static, only 2 other aspects increase between 5 to 15 points. All teaching activities conducted by lecturers in the learning process use PBL model. The application of PBL model do not succeed in encouraging students to be active in building their own knowledge through group work. After averaging the result from the first cycle, it is obtained 67.2 in average and 59.7 in the second cycle. The data show the failure of PBL model in cycle II. Contradictorily, although, the method failed to encourage the students to be active in the classroom, their reaction against the method seems to be positive. Based on the interviews of five participants, it is found out that their understanding of the research proposal improve significantly.

4. Conclusion

Based on the research objectives, results and discussion, the conclusions of this study are:

1. The application of PBL models can improve cognitive learning outcomes. This can be seen on an increase in the percentage of learning outcomes. The percentage of learning outcomes in first cycle was 70%, and in second cycle was 89%.

2. The application of PBL learning models can improve psychomotor learning outcomes. This can be seen on the average increase from 48.5% in the first cycle into 78.9% in the second cycle.
3. However, the application of PBL model failed to encourage the students to be active in class. Out of 11 observed aspects, the students show an increase only in two aspects, namely presenting the results of group discussion and reflecting and concluding the process of problem solving, respectively 5 and 15 points.

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