

# Effectiveness of the Application of Problem Base Learning Method in Adult Education Course Learning

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**Keywords:** Learning Effectiveness, Adult Education, Problem Base Learning Method.

**Abstract:** This study aims to analyze the effectiveness of the implementation of Problem Base Learning (PBL) method in the learning process of Adult Education Course. This research was conducted in the even semester, from January to May 2018. The effectiveness of PBL method was measured by comparison of the distribution of student scores PBL method with the distribution of students in subjects not applying the PBL method student's response to PBL method was analyzed through questionnaires administered to 29 students participating in Adult Education. The results that the application of the PBL method in Adult Education course is effective. This is indicated by the comparison of the students' grades in the course the PBL method with the distribution of the students' scores on non-PBL courses and the students' response to the PBL method implementation is in the medium category.

## 1 INTRODUCTION

Adult Education is a compulsory subject in the second semester for undergraduate students in the Department of Agricultural Extension Faculty of Agriculture. The main objectives of this course are (a) to provide a strong foundation to students to explain and analyze the concepts of adult learning, principles of adult education, various methods of adult education, principles in evaluating adult education, (b) to have basic skills as facilitators in adult learning, (c) to encourage students to have initiative, and communicative abilities.

Adult Education course provides a material containing; theories and approaches to learning, adults, principles of adult education, characteristics and factors that influence adult learning, various adult learning methods, evaluation in adult learning, and adult learning facilitators (Afrizal et.al, 2014). to prepare students to become: (a) Facilitators of Community Learning (b) Development Communicators, especially in the agricultural sector.

The Department of the Agricultural Extension was established in 2017, and began to organize teaching and learning activities in the odd semester of 2017/2018. Therefore, Adult Education course is the first course taught to students of the Department of

Agricultural Extension. Moreover, this method is the first method used in the learning process.

The reasons for applying Problem-based Learning method in this course come from the learning outcomes of the previous semester. There were several weaknesses of the applied learning methods, including underactive students, low group collaboration and student communication skills. For this reason, advanced course learning methods will be applied to encourage students to be more active and involved in the learning process (Kunandar, 2012).

The purpose of adult education courses is to allow students to apply the principles of adult education in learning. One method of learning that can realize this is the Problem Based Learning (PBL) method. Is the PBL method effective for adult education courses?

## 2 METHODS

The population of this research consists of 29 students from the Department of Agriculture Extension, Faculty of Agriculture who are enrolled in Adult Education courses. The research is during the even semester of 2017/2018, namely from January 2018 to May 2018.

The parameters used are: (a) student learning outcomes in Adult Education courses, which are obtained from the distribution of the final grades obtained by students, then compared with the distribution of the final grades in courses that do not apply the PBL method, (b) Student response to the development of learning methods. To find out how effective the learning process of this course is a survey on students' perceptions of the learning methods will be carried out (Basleman and Mappa, 2011).

Student perceptions were measured by distributing questionnaires to all of the students participating in Adult Education courses. Data was processed by using Likert scale.

### 3 RESULTS AND DISCUSSIONS

The results showed that the distribution of values of students in Adult Education courses that applied Problem Based Learning (PBL) methods is better than the distribution of student scores in subjects that do not apply PBL learning methods. Details of the distribution of final student grades are presented in Table 1.

Table 1: The student's final score spread in POD courses (PBL method) and Extension Basics (non PBL method)

No	Grades	Score	
		Non-PBL Amount (%)	PBL Amount (%)
1	A	0 (0)	6 (20)
2	A-	4 (13,33)	4 (13,333)
3	B+	7 (23,33)	13 (43,333)
4	B	14 (46,67)	4 (13,333)
5	B-	3 (10)	0 (0)
6	C+	2 (6,67)	1 (3,333)
7	C	0 (0)	1 (3,333)
8	C-	0 (0)	0 (0)
9	D	0 (0)	1 (3,33)
10	E	0 (0)	0 (0)

Table 1 shows that the distribution of the final grades of students in Adult Education courses increases, in A and A grades - obtained by 33.33% of the students, while in the Basics Extension courses students were only able to achieve the highest score of A- as much as 13.33%. For the lowest value obtained by students in both subjects, it is almost the same, namely the C value, as much as 6.67%. D value was obtained by students in the Adult Education. This is due to the fact that students have not taken the Final Examination until by the time this research was conducted.

Therefore, it has not influenced the results of the study.

The increase in the distribution of the final grades of students in the course of Adult Education when compared to the Extension Basics subject that applies the lecture method only, shows that the Problem Based Learning (PBL) method is quite useful in applying the learning process. The difference in the distribution of these values indicates that the application of the PBL method in POD courses is quite practical.

Students' assessment of the application of PBL learning methods is measured by several indicators, namely: the impact of the PBL method on increasing student soft skills, and changes in the learning process undertaken by students. The distribution of respondents' opinions on the PBL method is presented in Table 2.

Table 2: The average and category of students' response to the PBL method in the course.

No	Statement	average	category
1	The method used encourages student participation	4.4	Effective
2	The method used encourage students to be more active in the learning process	4.5	Effective
3	The method used in the learning process provides opportunities for students to play an active role	4.4	Effective
4	The method used makes it easy for students to understand lecture material	4.14	Enough
5	The method applied can increase students' courage in expressing an opinion	4.4	Effective
6	The method applied in the learning process can foster respect for the opinions of others	4.5	Effective
7	The method applied can improve student communication skills	4.8	Effective
8	The method applied can increase collaboration in groups	4	Enough
9	The method applied can foster student discipline	4	Enough
10	The method applied can improve students' creativity	4.1	Enough
11	The method applied can foster a critical attitude in students	4.1	Enough

Note: Score > 4.2 = Effective, score 4 < x < 4.2 = enough, score < 4 = Not effective

Table 2 shows that students consider PBL method to be effective in improving soft skills. Measured soft skills consist of communication skills, courage to express and respect for others; some students considered that the PBL method not to be effective enough to increase creativity, critical attitude and group collaboration ability. This is because the number of group members is too large, so there are group members who only act as "free raiders".

#### **4 CONCLUSION**

The application of the Problem Based Learning (PBL) method in the subjects of adult education is considered quite effective compared to the non PBL method. Student perceptions of the PBL method show that the PBL method is quite effective in improving students' soft skills.

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