The Effect of the Problem Based Learning Model on Students' Learning Outcomes of the Economic Education Study Program at Universitas Nusa Cendana during the Covid-19 Pandemic

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Abstract: This study aims to determine the differences in student learning outcomes using the problem-based learning model (PBL). The type of research used is quasi-experimental. The purpose of this study was to determine the effect of using the problem-based learning model (PBL) on the learning outcomes of UNDANA economic education students. Based on the results of the tests carried out, it can be concluded that the output of Pair 1 is obtained by Sig. (2-tailed) of 0.000 <0.05, it can be concluded that there is a difference in the average student learning outcomes for the Pre-test experimental (62.1) and Post-test experimental (85.78). In line with these results, Based on the output of Pair 2, the value of Sig is obtained. (2-tailed) of 0.000 <0.05, it can be concluded that there is a difference in the average student learning outcomes for the pre-test control class (63.66) and the post-test control class (74.7).

Keywords: learning outcomes, PBL, quasi-experiment, control class.

INTRODUCTION

Education is the spearhead and also a very important factor with the aim of producing human beings who have high quality in order to become individuals who can build the nation's development (Muhammadiah, *et al*, 2022). Because education is so important, educational institutions and the Indonesian government must continue to strive to build the best possible quality education so that its people can compete globally. Education that is well designed and organized will produce quality output in accordance with the objectives of the 1945 Constitution.

Social Studies if translated into Indonesian is Social Sciences. Where social science is a simplification of the social sciences for educational purposes covering several aspects including economics, geography, history, sociology, anthropology, political science, psychology, and philosophy which in practice aims to train students both around school elementary to higher education.

Higher education is a continuation of secondary education which is held to prepare students to become members of society who have academic and professional abilities who can apply, develop and create science, technology and art (Tirtarahardja & La Sulo, 2010). Higher education has an important role in producing quality graduates who are equipped with professional skills in the fields they study. In this regard, the teaching and learning process in the classroom has attracted the attention of researchers and educational practitioners in order to improve the quality of higher education graduates. Strategic research on teaching and learning needs to be carried out, so that what, why, and how efforts should be made to improve the quality of higher education can be known. Law of the Republic of Indonesia Number 22 of 1961 article I states that Higher Education is a scientific institution which has the task of providing education and teaching above secondary level lecturers, and which provides education and teaching based on Indonesian national culture and in a scientific way.

Article 2 Higher Lecturers generally aim to: (1) form moral people who have the spirit of Pancasila and are responsible for the realization of a just and prosperous, materially and spiritually socialist Indonesian society. (2) preparing capable personnel to hold positions that require education to maintain and promote higher knowledge and who are capable of standing alone in knowledge; knowledge, advances in and endeavors of the science field research. (3) carry out culture and social life.

From the paragraph above it can be concluded that higher education in Indonesia is very important because with higher education (university) it can create a society that is intellectual and able to have proficient abilities in all aspects both physically and spiritually and can increase dignity in life. socialize.

Learning is a very important element in every learning process from all levels, one of which is at the university level. This means that success or failure depends on the learning process experienced by students (Djamarah & Zain, 2010; Mariani, *et al*, 2022). Teaching and learning activities are the essence of activities in education.

Teaching and learning activities involve all learning components, especially teaching materials and teaching methods. The learning method is the substance that will be conveyed in the teaching and learning process, without a learning model the learning process will not run effectively. To achieve student learning success, it must be supported by appropriate learning methods so that student learning interest can be achieved as expected.

In the conditions of the Covid-19 pandemic, it has hampered the pace of activities in the world of education experienced by all students at all levels. This has proven to have a negative impact on students. Since the establishment of the Covid-19 pandemic as a national disaster, the Indonesian government has implemented a strategy, education policy in the learning process where face-to-face or offline learning is changed to online learning.

Changes in policy that are so fast force every institution, both schools and universities, to be ready to keep up with technological developments that are developing very quickly. Meanwhile, it was found that there were many obstacles in the use of technology, including lecturers who were not ready in terms of preparing classes to using inappropriate or monotonous learning models, students who did not have adequate access and other technical matters that made them tend to be passive in the learning process. From this problem it also affects the mentality of students, they are required to study face to face without a set time limit. They also lose valuable time to interact with their friends and have a bad social impact.

In response to this, there needs to be a strategy that must be owned by a lecturer in preparing his class well, one of which is by using the right learning model, so that online classes can run fun and be able to spur students to be able to learn independently and not be passive.

In addition, these learning obstacles or difficulties certainly have a significant influence on failure to achieve maximum performance, efforts to overcome learning difficulties are not easy to implement. This is because the learning process is a complex process that interrelates many factors.

Overcoming learning difficulties and achieving maximum learning achievement, students and lecturers must first understand the learning process and all the factors that influence it. One of the factors that influence the success of the teaching and learning process is the selection and use of the right method for a concept. Learning that is carried out in a variety of ways will provide great opportunities for student activities to be optimal in the conditions of the Covid-19 Pandemic.

Under these conditions the learning model is very important to apply in order to be able to increase student activity in the learning process. The learning model is also a framework or guideline used in the learning process which is compiled by the lecturer systematically both from the syntax, the social system of students, the principle of reaction and other support systems.

According to Mulyatiningsih, (2010). The model has a function as a guide in planning for the implementation of the learning process. Arinya, in one learning model a lecturer can use several learning methods, as well as use learning techniques and tactics in that method. There are many learning models that lecturers can apply to overcome learning problems during the Covid-19 pandemic. One good learning model to apply is Problem Based Learning. According to Arends in Wulandari & Surjono, (2013) PBL is learning that has the essence of presenting various authentic and meaningful problem situations to students. In addition, in PBL the role of the lecturer is to present authentic problems so that it is clear that students are required to be active in solving these problems.

The Department of Economics Education at Nusa Cendana University has two majors, namely Commerce and Accounting Education. Trade system education organizes microeconomics learning programs for students who choose the concentration of learning in the field of trade system. Microeconomics courses are compulsory courses taught and are prerequisite courses before continuing on to macroeconomics courses. This course is intended to provide basic knowledge to students regarding the basic concepts of microeconomics which aims to examine the allocation of resources so that they can be used in everyday life whose purpose is to formulate and regulate management tools and study consumer behavior.

Based on observations made during the lecture process at the Economics Education Study Program at Nusa Cendana University during the Covid-19 pandemic, there were several problems in the learning process. The phenomena that occur include lecturers still using conventional models, namely lectures in discussing subjects because of

limitations in the online learning process, so students have not been able to develop their thinking skills to the fullest. Students tend to be passive so as to make learning motivation low during learning takes place. The microeconomics learning process is dominated by lecturers so that student learning activities are limited to making notes. In addition, the lecturer's explanation is difficult for students to understand so that students are not able to complete the economic tasks given by the lecturer.

The problems that existed at the Undana Economics Education Department in terms of the learning process during the Covid-19 pandemic also caused students to find it difficult to understand the material presented and were unable to complete the assignments or exercises given. Students' understanding of microeconomics material tends to be low so that student learning outcomes in microeconomics are not optimal. This can be seen from the results of the midterm exam where out of 50 people who took students taking the microeconomics course, there were 42 people (84%) who did not meet the success criteria. The success criteria will be known to be successful if all or most of the students achieve a B+ grade or with a score of 75-79.

Based on the explanation of the problems above, it is necessary to apply learning methods that can develop student interest in learning in terms of problem solving, one of which is a learning model

that is able to answer the above problems is Problem Based Learning. Therefore the authors are interested in conducting research with the title "The Influence of Applying the Problem-Based Learning Model to StudentS' Learning Outcomes of the Economics Education Study Program at Universitas Nusa Cendana during the Covid-19 Pandemic.

RESEARCH METHOD

The research design used in this research is an experimental research design with a quantitative approach. The technique used in determining the sample amounted to 50 students. The data used are primary and secondary data. In the process of this research, the analysis carried out consisted of classical instrument and assumption tests, where based on the test results, valid results were obtained and in accordance with the testing criteria so that research could be continued at the analysis stage

RESULTS AND DISCUSSION

Based on the process, the researcher gave treatment to both the experimental class and the control class. This is done to understand and know the students' initial conditions (understanding and basic knowledge) regarding the subject matter to be taught. This can be seen in the full description (attachment). Below is a brief description of the data for each class shown in table 1.1 below

Tabel 1.1 Deskriptif Pretest
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Pre-Test Eksperiment	50	51	75	62.10	5.800
Pre-Test Control	50	45	84	63.66	7.652
Valid N (listwise)	50				

Table 1.2 also describes the ability of students both from the pretest and posttest. From the table it can be seen that student achievement is increasing. This is indicated by the difference in the results of

the pre-test and post-test where the post-test > pre-test. So it can be concluded that the treatment in the experimental class contributed well.

Tabel 1.2 deskriptif pretest dan *posttest*

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Pre-Test Eksperiment	50	51	75	62.10	5.800
Post-Test Eksperiment	50	70	98	85.78	5.501
Pre-Test Control	50	45	84	63.66	7.652
Post-Test Control	50	55	89	74.70	7.189
Valid N (listwise)	50				

Based on the normality test, the research data shows a normal distribution. Then the next stage is hypothesis testing. The next stage is the sample t-test (SPSS 21), where this test is carried out to understand whether there are differences or differences in each class both before and after testing (the standard error rate is below 5% or 0.05). Decision making with this test is based on the error rate. Here, the standard error rate is below 0.05 which indicates a significant difference. Conversely, if the standard error rate is above 0.05. This means that in the process there is no clear change (differences covering learning outcomes), therefore researchers can withdraw and conclude that variables do not contribute to differences in treatment.

Tabel 1.3 Uji Paired Sample

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre-Test Eksperiment - Post-Test Eksperiment	-23.680	8.223	1.163	-26.017	-21.343	-20.364	49	.000
Pair 2	Pre-Test Control - Post-Test Control	-11.040	6.230	.881	-12.811	-9.269	-12.530	49	.000

Based on the presentation of the results of the analysis in this study, it can be concluded that the pair 1 test obtained Sig. In line with that, the results of the pair 2 test also show the same contribution where learning outcomes show differences in both the control class (including post and pre-test) and the experimental class (including post and pre-test). After verifying the analytical prerequisites, the next test is the independent sample test. This test shows how the contribution in both classes. Based on this, it is found that the significance value is 0.00, then Ho is rejected or Ha is accepted. So it can be said that the application of PBL can spur and improve results in both the learning process and all aspects in it.

DISCUSSION

Problem Based Learning is a form of variation in the learning process where this method emphasizes solving a problem scientifically through the process of analyzing an obstacle in real conditions, while emphasizing the ability and expertise to solve problems (Mustajab*, et al.*, 2020). In fact, it is often found that students do not have sufficient skills to solve problems (Suryani*, et al.*, 2020). This causes a child's low ability to solve problems, and this has an impact on processes, abilities and values. Basically, the problem is complex and is determined by many factors, one of which is the monotony of the learning method.

Reflecting on this problem, there are several views and opinions regarding the solution to the problem. But one of the most effective is the variation in processes, media and learning models, where problem-based learning is a special solution. This method is not new, where in its implementation there are 4 principles including constructive, independent, collaborative, and contextual learning.

Based on this explanation, it can be seen that PBL is one way to accustom children to exploring and analyzing. So that through this method, children will be more responsive in learning and understand learning material more quickly (Riandi & HS, 2015). In addition, this method also provokes

children's curiosity, where this character will make students interested in carrying out learning and can spur self-will to be able to solve these problems. In line with this analysis, Sardiman, (2011) also stated the same thing where in the learning process achieving goals and optimizing the learning process are very much related to student activities in the teaching and learning process.

The explanation above is also reinforced by Janah & Widodo, (2013) where Ian emphasizes that problem-based learning has a significant contribution to learning outcomes (35%) and 19.36% (scientific process skills). At the same time, Robiyanto, (2021) also conducted his research where there was a significant change in student achievement where this increase in learning achievement can be seen in the change in value from 57.14 to 79.09, so that it can be said that PBL is effective and efficient in spurring results. student learning.

The same opinion was also presented in research during a pandemic which explained that PBL was an effective solution in boosting student learning outcomes, he explained that there was an increase in cognitive learning outcomes which was evidenced by (tcount (4.88) > ttable (2.00))) and besides that, there was also an increase in student activity. This is evidenced by (tcount 5.44> ttable 2.00). So it can be concluded that PBL is very well used to improve learning achievement. A similar view was also expressed in research during the pandemic by Rombe, *et al.*, (2021) which explained that PBL is an effective solution to boost student learning outcomes, this is evidenced by (tcount (4.88) > ttable (2.00)). Besides that, PBL can also stimulate activity. This is evidenced by (tcount (5.44) > ttable (2.00)). Based on the findings above, it can be concluded that PBL is a special solution in spurring learning outcomes.

CONCLUSION

Based on the background explanation, results and discussion, it can be concluded that learning variations, in this case PBL, have a good role in boosting student achievement, especially learning variations including PBL, where this method will encourage students to develop analytical skills and can make it easier for students to understand material, apart from that, this method is also very good in forming critical thinking skills that are needed by students.

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