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The Influence of MBKM Project-Based Learning on Problem Solving of Educational Technology Undergraduate Students at Bina Mandiri University Gorontalo

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Abstract : *This research aims to determine the impact of Project Based Learning (MBKM) on Problem Solving for Undergraduate Students in Educational Technology at Bina Mandiri University, Gorontalo. The research method used is a qualitative and quantitative approach at four research stages. According to Creswel and Clark, mixed methods research is a research design with philosophical assumptions as well as being an inquiry method. As a methodology, this mixed research involves philosophical assumptions that guide the direction of data collection and analysis, as well as cultivating qualitative and quantitative research approaches throughout many phases of the research process. This research is in the first stage, namely identifying problem solving for Bachelor of Educational Technology students and measuring the effectiveness of MBKM project-based learning at UBMG. The results of the research show that project-based learning (MBKM) can influence Problem Solving for students in the Bachelor of Educational Technology study program at Bina Mandiri University, Gorontalo. This can be seen from the achievement of the problem solving method indicator for the Educational Technology S1 PRODI students, which was initially 75%, increasing to 87% after participating in project-based learning (MBKM) for one semester. The conclusion of this research is that project-based learning (MBKM) has a positive impact on improving problem solving skills in undergraduate students in educational technology so that it can be applied to subsequent learning processes.*

Keywords: *Project-Based Learning, MBKM, Problem Solving, Educational Technology*

1. INTRODUCTION

Project-based learning comes from John Dewey's great thought that students will gain practical knowledge if they experience and practice things related to real life (learning by doing), and that experience is the best way to gain knowledge. Based on these facts, project-based learning can accommodate the achievement of three basic competencies, namely attitudes, knowledge and skills, so that it can be used as an alternative in implementing the 2013 Curriculum (Kusuma, 2020). Learning experiences outside the classroom allow students to learn about their community and create unique features. Outcomes or results of project-based learning very often take the form of exhibitions or real products.

In relation to learning experiences, students are required to have problem solving. Problem solving skills are abilities that are based on the process of identifying problems, looking for alternative solutions, and applying the best solutions in relatively new situations (Keane et al, 2021). With this ability, students are expected to be able to optimize the implementation of the MBKM curriculum in higher education. The Independent

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Campus Learning Policy (MBKM) is one of the policy studies that the government is currently promoting to be implemented in the world of higher education. MBKM is a self-paced, versatile mode of higher education learning designed to create a non-restrictive, creative learning community that meets student needs (Roehana dkk, 2021). The application of technology in the world of education plays a role in the MBKM program, educational technology is the study and practice of assisting the learning process and improving performance by creating, using and managing adequate technological processes and resources (Paputungan, 2021).

Based on this description, the author feels it is necessary to carry out research entitled The Impact of Project Based Learning (MBKM) on Problem Solving for Undergraduate Students in Educational Technology at Bina Mandiri University, Gorontalo. The formulation of the problem in this research is What is the Impact of Project Based Learning (MBKM) on Problem Solving for Undergraduate Students in Educational Technology at Bina Mandiri University, Gorontalo? This research aims to determine the impact of Project Based Learning (MBKM) on Problem Solving for Undergraduate Students in Educational Technology at Bina Mandiri University, Gorontalo.

2. THEORITICAL REVIEW

MBKM

Merdeka Belajar Kampus Merdeka (MBKM) is a program launched by the Ministry of Education, Culture, Research and Technology (Kemendikbudristek) to provide opportunities for students to hone their skills according to their talents and interests. The Independent Campus Learning Policy is in accordance with Minister of Education and Culture Regulation no. 3 of 2020, which gives students the right to study outside their study program for 1 semester and carry out activities outside of higher education for 2 semesters. MBKM programs include:

a. Teaching Campus

It is a channel that provides students with the opportunity to study outside campus for one semester to practice their ability to solve complex problems by becoming partners with teachers to innovate in learning, develop strategies and learning models that are creative, innovative and fun.

b. Apprenticeship

Certified Independent Study and Internship or MSIB is one of the Merdeka Campus programs designed to ensure students get the main, best and most up-to-date skills and competencies to face the world future. Students gain experience studying off campus for more than 16 to 24 weeks by converting credits for the courses they take.

c. Studi Independen

Certified Independent Study is part of the Independent Campus program which aims to provide opportunities for students to learn and develop themselves through activities outside of the lecture class, but is still recognized as part of the lecture. This program is intended for students who want to equip themselves to master specific and practical competencies that are also sought after by the industrial world.

d. Independent Student Exchange

The Independent Student Exchange is an Independent Campus program which provides students with the opportunity to study for one semester at a tertiary institution (PT) from another cluster in Indonesia. Participants in this program are entitled to receive course credit recognition of up to 20 credits and have the opportunity to develop leadership skills, self-confidence and social sensitivity outside of campus.

e. Independent Entrepreneur

Independent Entrepreneurship is part of the Independent Campus program of the Indonesian Ministry of Education, Culture, Research and Technology which provides opportunities for students to learn and develop themselves to become potential entrepreneurs through activities outside of lecture classes. The Independent Entrepreneurship Program collaborates with Program Implementing Universities to develop entrepreneurial learning that is able to hone the entrepreneurial spirit, encourage increased entrepreneurial experience and increase students' employability abilities.

f. IISMA(Indonesian International Student Mobility Awards)

IISMA is a scholarship program from the Ministry of Education, Culture, Research and Technology of the Republic of Indonesia for Indonesian students in mobility programs at leading universities abroad. This scholarship offers two schemes for undergraduate and vocational students. Indonesian students will have

the opportunity to study at foreign universities for 1 semester or the equivalent of 20 credits. Selected students will have the opportunity to study outside their major, as well as develop their personal potential and intercultural communication.

g. Teaching Practitioner

Teaching Practitioner is a program initiated by the Ministry of Education, Culture, Research and Technology of the Republic of Indonesia so that college graduates are better prepared to enter the world of work. This program encourages active collaboration between expert practitioners and champion lecturers to create a deep and meaningful exchange of knowledge and expertise between academics in higher education and professionals in the world of work. This collaboration is carried out in courses delivered in classrooms both offline and online.

h. Rise By Google, GoTo and Traveloka

Rise is one of the MBKM programs which aims to improve the computational abilities of students in Indonesia. This program has the outcome of ensuring that the level of literacy and computer skills of Indonesian students is high and is able to answer the needs of Indonesian society which is increasingly automated in the future. This program is supported by various world-renowned technology companies, such as Google, Gojek, Tokopedia, Traveloka, and the Deeptech Foundation.

i. Ministry of Energy and Mineral Resources - GUERILLA

The Certified Independent Study and Internship Program (MSIB) Solar Electricity Initiative Movement (GERILYA) is a program prepared by the Ministry of Energy and Mineral Resources to be implemented at the Merdeka Belajar Campus Merdeka Ministry of Education, Culture, Research and Technology.

Problem Solving

Reporting from the book Teaching and Learning Process (2013) by Oemar Hamalik, problem solving is a mental and intellectual process in finding a problem and solving it based on accurate data and information, so that appropriate and careful conclusions can be drawn. Apart from that, problem solving aims to find a way out. Problem solving is the ability to solve problems by making the right decisions. Based on the book Adversity & Problem Solving Skill Concepts compiled by Risma Anita Puriani and Ratna Sari Dewi, problem solving is one of the soft skills that a person must have. To be able to solve problems, people must be able to think positively, logically and

systematically. This ability is also related to other soft skills, such as analytical skills, innovation, teamwork, communication and decision making. Reporting from the research journal at Satya Wacana Christian University, problem solving is an intellectual skill obtained from learning results. The importance of this ability can be seen, among other things, from the attention paid by various schools of psychology to problem solving skills. Scientific or educational activities regarding problem solving have actually been developing for a long time in various countries, starting in 1927. During this time, various theories, models, designs, strategies, techniques and evaluations of learning regarding problem solving have developed.

This problem solving ability has many benefits. The following are some of the benefits reported from realprojects.org and research by UIN Sunan Gunung Djati.

1) Fix What's Broken

   In life, we will always encounter problems, whether at home, school or work. Problems can cause something to become damaged or even destroyed. For example, problems at a company that might cause it to go bankrupt, or problems with friends that could damage relationships. Someone with problem solving skills can repair something that is broken to make it good.

2) Risk Management Capabilities

   Resolving problems is usually followed by risk management considerations. Often problems have many risks that must be calculated so that the positive impact can be greater than the negative impact.

3) Emotional Stability

   The more often people face problems and successfully solve them, the more they will gain high emotional intelligence and thus gain emotional stability.

4) Become more creative and critical

   The more diverse problems we solve, the more creative we will be. Because in the problem solving process, we are required to find a way with critical thinking. That's where the creative process will occur.

5) Skilled at making decisions

   Problem solving and decision making are like two inseparable sides of a coin. Maybe we don't always make the right decisions. As we face more problems, we will become more skilled at making decisions.

6) Expand Knowledge

Problems will lead us to new knowledge that we may have never encountered. If we are willing to learn from problems, of course our knowledge will broaden. We can also share knowledge about a problem that we have mastered with other people so that it becomes more useful.

Problem solving is carried out through several stages or processes. The following are a number of problem solving processes and examples, as summarized from Ruslia Isnawati's book entitled The Importance of Problem Solving for a Teenager and Sampoerna University.

a) Problem Definition

The very first stage is defining the problem. You have to find out what the real essence of the problem is and where its source comes from. For example, when facing the problem of declining employee performance, you must know what the cause is. To explore this may not be easy, but it must be done in depth.

b) Identify the Problem

After knowing the root of the problem, identify and map things related to the problem, such as direct and indirect impacts, who is involved. For example, in the problem above, it turns out that the causes are several things, namely ineffective communication and conflict between several people. At this stage, you may have to call several people for questioning.

c) Look for Alternative Solutions

From the identification results, we will find several alternative solutions. Some solutions in the case above include rotating employees, removing employees who are the source of the problem, doing leisure activities together, or perhaps making new regulations.

d) Choose the Best Solution

From the alternative solutions that appear, you can choose the best solution. At this stage, you are required to be able to carry out risk management and make the right decisions. In this case, if the problem is still minor, perhaps it can be handled by carrying out relaxing activities so that all employees' minds are refreshed, then they are given an understanding so that the conflict subsides and they return to work as they should.

e) Implement and Evaluate

After choosing the solution that is considered the best, implement it according to plan. After running, evaluate whether it is effective. Make further repairs if necessary.

Problem solving abilities will actually increase by themselves with more experience facing problems. Below are several tips for improving problem solving skills summarized from the book Making Peace with the Quarter Life Crisis compiled by Jewellius Kistom M and the site hayz.net.nz.

a. Increase Knowledge

To be able to solve problems at work, for example, requires a lot of knowledge because this is one way to improve problem solving abilities. Increasing technical knowledge in the field of work you are involved in certainly makes it easier to overcome the problems you are facing.

b. Get involved in problem solving

If there is a problem in your circle, try to get involved in solving the problem. You may be able to help identify problems and provide solution suggestions to decision makers.

c. Frequent discussions

Have frequent discussions with anyone. Discussions are not always formal, but you can also chat with friends to discuss a problem. By discussing, you will gain new insights that you may not have thought of. This might be useful someday.

d. Do Creative Activities

There are many creative activities that we can do, for example writing stories, composing songs, reading books, recycling items, playing music, sports, and playing games with multilevel levels.

Maybe this activity is not directly related to solving problems in the real world, but our brains will be able to think creatively so we can find solutions that we never thought of.

Problem identification in this research was carried out using observation and discussion methods to determine the level of student understanding using the criteria for the level of understanding according to Benjamin S. Bloom, divided into three parts, including:

1) Understand

   Understanding can be defined as the level of knowledge that can be used to explain what is known correctly. However, at this level of knowledge, people who understand are usually unable to apply what they understand to actual problems (in the real world).

2) Not Understanding Enough

   Not understanding enough is a person's ability to express an opinion just because they know the source cannot be justified or can even be said to be cryptic.

3) Don't understand

   The level of not understanding is a person's ability to respond to questions given by stating his opinion without understanding at all what was said.To determine the criteria for the level of understanding, the following is a list of questions asked:

   a) What is meant by MBKM?
   b) What activities are carried out in MBKM project-based learning?
   c) How will you implement the MBKM project-based learning process in the field later?
   d) What courses have been converted to MBKM implementation?
   e) Explain your plans for filling MK demands so that they can be implemented in the MBKM project-based learning process in the field later?

Educational Technology

Educational technology is a complex and integrated process for analyzing, designing, implementing, evaluating, and managing human learning problems. Educational technology can also be defined as a field that facilitates human learning through the identification, development, organization and utilization of learning resources. Educational technology is different from learning technology, which is the media used in learning. Educational technology can help increase students' interest in learning. Educators can use technology to prepare learning materials and tools that are more interesting than traditional methods. Digital-based education is the use of digital technology in the teaching and learning process, such as computers, tablets, smartphones, online learning platforms and educational applications.

According to the AECT (Association for Educational Communication and Technology) Definition and Terminology Commission, educational technology is a complex and integrated process that involves people, procedures, ideas, equipment and

organizations to analyze problems, find solutions, implement, evaluate and manage problem solving. which concerns all aspects of human learning. On the other hand, there are those who believe that educational technology is the development, application and assessment of systems, techniques and tools to improve and enhance the human learning process. Here, the priority is the learning process itself, as well as tools that can help the learning process. Another opinion says that educational technology is the study and practice of assisting the learning process and improving performance by creating, using and managing adequate technological processes and resources. From the opinions above, we can conclude that the definition of educational technology is a systematic and critical approach to education (the process of solving problems in educational problems). The most basic education problems can be grouped into 4 types, namely: equity problems, quality problems, effectiveness and relevance problems, and efficiency problems.

3. METHOD

Siswantoro (Kawatak, 2019) stated that a research approach is a way of looking at objects as a determinant of research direction. The approach used in this research is qualitative and quantitative. According to Sugiyono (2020), the quantitative research method is a research method with a research design with systematic, planned and structured specifications based on the philosophy of positivism. Sugiyono explained that qualitative methods are research that uses a philosophical basis to examine scientific conditions (experiments). The research method used is a qualitative and quantitative approach at four research stages. According to Creswel and Clark (Ismail et al, 2021) mixed methods research is a research design with philosophical assumptions as well as being an inquiry method. As a methodology, this mixed research involves philosophical assumptions that guide the direction of data collection and analysis, as well as cultivating qualitative and quantitative research approaches in many phases of the research process (Samsu, 2021). This research is in the first stage, namely identifying problem solving for Bachelor of Educational Technology students and measuring the effectiveness of MBKM project-based learning at UBMG.

The research flow diagram can be described as follows:

Based on the research flow diagram, it can be explained that problem identification, literature review and research objectives have been determined. The research process is now at the data collection stage, then continued with data interpretation and finally reporting.

The research method used is a qualitative and quantitative approach (mixed method) at four research stages. To determine the impact of project-based learning (MBKM) with indicators of independence and meaningful learning on problem solving (indicators: solving problems through facts or searching for data sources, analyzing the information obtained, compiling alternatives in solving problems, and effective rules) for Bachelor of Technology students Education at Bina Mandiri University Gorontalo. This research is in the first stage, namely identifying problem solving for Bachelor of Educational Technology students and measuring the effectiveness of MBKM project-based learning at UBMG. The process begins with problem identification, namely project-based learning (MBKM) and problem solving for undergraduate students in Educational Technology at UBMG. Followed by a literature review of previous studies that raise topics relevant to the research. Then the research objective was determined, namely to determine the impact of project-based learning (MBKM) on problem solving for undergraduate students in Educational Technology at Bina Mandiri University, Gorontalo. Followed by data collection activities which will be carried out at the target university (UBMG) for students of the Bachelor of Educational Technology study program. After collection, the data is then interpreted through qualitative and quantitative methods.

The data found is then reported in the form of a progress report. The output of this research is publication in the national journal SINTA 3, namely the Journal of Educational Technology Innovation, YouTube publication (not mandatory) and the results of this research will be used as material for preparing applied project-based learning (MBKM) in the Bachelor of Educational Technology study program at Bina Mandiri University,

Gorontalo. The indicator of achievement in this research is the problem solving of undergraduate students in Educational Technology at Bina Mandiri University, Gorontalo. There are two members of the team in this research, the chairman is a Bachelor of Educational Technology Lecturer (Frezy Paputungan) who is tasked with preparing proposals, RABs, progress reports and journal publications and one member is a Bachelor of Educational Technology Lecturer (Abd Rahman K. Ma'ruf), namely carry out research activities (out in the field) for data collection, data interpretation, and YouTube publication.

4. RESEARCH IMPLEMENTATION

Identification of problems

The Independent Campus Learning Policy (MBKM) is one of the policy studies that the government is currently promoting to be implemented in the world of higher education. MBKM is a self-paced, versatile mode of higher education learning designed to create a non-restrictive, creative learning community that meets student needs. The application of technology in the world of education plays a role in the MBKM program, educational technology is the study and practice of assisting the learning process and improving performance by creating, using and managing adequate technological processes and resources. In this project-based learning, students are trained and required to carry out independent learning as a conversion from several courses in the even semester, so that problem solving skills can grow and develop. The implementation of MBKM project-based learning has just been implemented at Bina Mandiri University Gorontalo, especially in the Bachelor of Education Technology study program. In the initial stages of implementing a learning program, of course it is necessary to determine a curriculum/reference or module that can be used as digitalization develops. Before developing a curriculum, it is very necessary to analyze the impact and needs of MBKM project-based learning. So this research is very important to carry out.

Problem identification in this research was carried out using observation and discussion methods to determine the level of student understanding using the criteria for the level of understanding according to Benjamin S. Bloom.

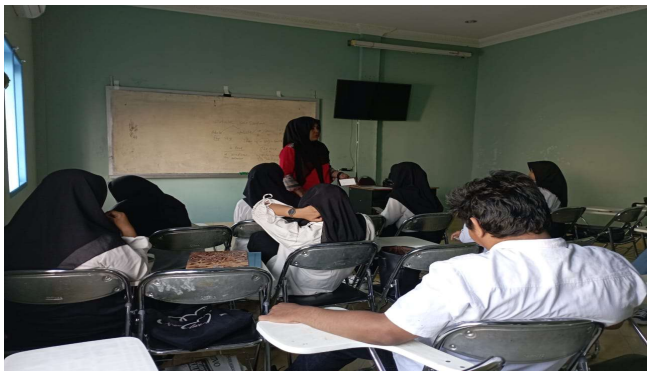

Figure 1. Discussion of students' understanding of MBKM using the level of understanding criteria according to Benjamin S. Bloom

Literature Study

In 2021 the Ministry of Education and Culture introduced a prototype curriculum which has been upgraded to an independent curriculum, which focuses on students' freedom to learn. The Merdeka Curriculum highlights the application of learning methods that focus on students, with the aim of training their independence and producing meaningful and enjoyable learning.

Research in line with the implementation of MBKM has been carried out, including Desi Arisandi's research entitled The Impact of Independent Campus Learning Activities (MBKM) Internships and Independent Study in Improving Student Competence showing differences in variables in project-based learning on problem solving with the research results that internship activities and independent study really helps improve student competence both in hard skills and soft skills. Meanwhile, Suryani Dewi's research with the title Application of the Project-Based Learning Model to Improve Learning Outcomes, there are differences in the MBKM research variables on student problem solving with the research results of the PjBL method being effective in implementing lectures and achieving learning objectives with learning completeness of 100%. In research by Maria Christina Sri Sunarsih, & Tuty Setijani, the research results show that there is an influence of project based learning model learning on problem solving abilities in class II students' flat shape material at SDN Dukuh Menanggal 1/424 Surabaya. In this research there are also differences in variables and research subjects.

Research purposes

This research is a study of the impact of project-based learning (MBKM) on problem solving for undergraduate students in Educational Technology at Bina Mandiri University, Gorontalo. Project-based learning comes from John Dewey's great thought that students will gain practical knowledge if they experience and practice things related to real life (learning by doing), and that experience is the best way to gain knowledge. Based on these facts, project-based learning can accommodate the achievement of three basic competencies, namely attitudes, knowledge and skills, so that it can be used as an alternative in implementing the Curriculum (2013). Learning experiences outside the classroom allow students to learn about their community and create unique features. Outcomes or results of project-based learning very often take the form of exhibitions or real products.

In relation to learning experiences, students are required to have problem solving. Problem solving skills are abilities based on the process of identifying problems, looking for alternative solutions, and applying the best solutions in relatively new situations. With this ability, students are expected to be able to optimize the implementation of the MBKM curriculum in higher education. The results of determining the research objectives are as follows: The formulation of the problem in this research is What is the Impact of Project Based Learning (MBKM) on Problem Solving for Undergraduate Students in Educational Technology at Bina Mandiri University, Gorontalo? This research aims to determine the impact of Project Based Learning (MBKM) on Problem Solving for Undergraduate Students in Educational Technology at Bina Mandiri University, Gorontalo.

Data collection

Data collection was carried out starting from April, May, June, July, August. According to Sugiyono (2020), there are generally four data collection techniques, namely:

a) Observation: Data collection technique by observing and recording the phenomena that are the object of observation. Observations are carried out directly at the research location to determine the conditions that occur or prove the correctness of the research design.
b) Interview: Data collection technique used to conduct a preliminary study to find the problem being studied. Interviews are also used to find out more in-depth things from respondents.

c) Documentation: Data collection techniques from document and recording sources, both in the form of writing and images.
d) Combination or triangulation (observation, interviews, and observations): Existing data collection techniques and data sources. Triangulation is used to test the credibility of the data.

5. DISCUSSION RESULTS

Results

Problem identification in this research was carried out using observation and discussion methods to determine the level of student understanding using the criteria for the level of understanding according to Benjamin S. Bloom, divided into three parts, including:

a. Understand

Understanding can be defined as the level of knowledge that can be used to explain what is known correctly. However, at this level of knowledge, people who understand are usually unable to apply what they understand to actual problems (in the real world).

b. Not Understanding Enough

Not understanding enough is a person's ability to express an opinion just because they know the source cannot be justified or can even be said to be cryptic.

c. Don't understand

The level of not understanding is a person's ability to respond to questions given by stating his opinion without understanding at all what was said.

To determine the criteria for the level of understanding, the following is a list of questions asked:

1) What is meant by MBKM?
2) What activities are carried out in MBKM project-based learning?
3) How will you implement the MBKM project-based learning process in the field later?
4) What courses have been converted to MBKM implementation?

Explain your plans for filling MK demands so that they can be implemented in the MBKM project-based learning process in the field later?

The samples taken were all 12 students from the first batch of Bachelor of Educational Technology students for the 2023 - 2024 academic year at Bina Mandiri University, Gorontalo. The following is a list of research sample names:

Table 1. Research Sample

No	Name	Gender
	RADITYA NUR RAHMAN PAKUDU	L
	URIK TAURIK	L
	MEILAN MATITI	P
	EVANDRI PUTRA PAPUTUNGAN	L
	NUR AYU WININGSIH	P
	MUTMAINAH LATABI	P
	SARTIKA A. KARAMA	P
	YURIKE BALA	P
	RAHMATIA INAKU	P
.	ZIHAN USMAN	P
.	MARYAM PASO	P
.	NELMI HAFIZAH MOKOGINTA	P

6. DISCUSSION

Table 2. Problem Solving Pretest Observation Results

No	Name	Comprehension Criteria		
		Tidak Paham	Tidak Cukup Paham	Paham
	RADITYA NUR RAHMAN PAKUDU		√	
	URIK TAURIK		√	
	MEILAN MATITI			√
	EVANDRI PUTRA PAPUTUNGAN			√
	NUR AYU WININGSIH		√	
	MUTMAINAH LATABI	√		
	SARTIKA A. KARAMA	√		
	YURIKE BALA		√	
	RAHMATIA INAKU			√
.	ZIHAN USMAN			√
.	MARYAM PASO		√	
.	NELMI HAFIZAH MOKOGINTA		√	

From table 3, it can be concluded that the problem solving abilities of undergraduate students in Educational Technology: 2 people do not understand, 6 people do not understand enough and 4 people understand. The Problem Solving Method Indicators used are (Purnamasari & Setiawan, 2019) as follows:

a) Identify the problem, understand the existing problem, state what is known and who was asked,
b) Plan to solve the problem, state and write down the method or formula that will be used
   used to solve problems,
c) Solve problems according to what has been planned, calculate well and correctly,
d) Evaluate the results, draw conclusions from the results obtained, and check the results of the calculations.

After Bachelor of Educational Technology students carried out project-based learning (MBKM) for 6 (six) months in the field, researchers again measured problem solving indicators through observation and discussion. The following are the results of observations and discussions:

Table 3. Observation Results Problem Solving Posttest Observation Results

No	Name	Comprehension Criteria		
		Tidak Paham	Tidak Cukup Paham	Paham
	RADITYA NUR RAHMAN PAKUDU			√
	URIK TAURIK		√	
	MEILAN MATITI			√
	EVANDRI PUTRA PAPUTUNGAN			√
	NUR AYU WININGSIH			√
	MUTMAINAH LATABI		√	
	SARTIKA A. KARAMA			√
	YURIKE BALA		√	
	RAHMATIA INAKU			√
.	ZIHAN USMAN			√
.	MARYAM PASO			√
.	NELMI HAFIZAH MOKOGINTA			√

From this table it can be concluded that problem solving among Bachelor of Educational Technology students has increased, this can be seen from the number of students who don't understand 0, 3 who don't understand enough and 9 students who understand.

7. CONCLUSION

Project-based learning (MBKM), which was first implemented at Bina Mandiri University, Gorontalo, can improve problem solving in Educational Technology S1 PRODI students. From the pretest and posttest results, it shows that there is an increase in problem solving abilities in Bachelor of Educational Technology students before and after implementing project-based learning (MBKM). The conclusion of this research is that the impact of project-based learning (MBKM) on problem solving for undergraduate students in Educational Technology has a positive influence, so further research entitled "Application of MBKM Project-Based Learning to Improve Problem Solving for Undergraduate Students in Educational Technology at Bina Mandiri University, Gorontalo" is important to carry out. so that the preparation of curriculum and project-based learning activities can be effective considering the good impact, especially on learning objectives in higher education. The fact found in the field is that students' enthusiasm increases when given the opportunity to do project-based learning in the field, but there are shortcomings, namely administration and curriculum that need to be revised so that implementation is not confused. The implications of project-based learning at Bina Mandiri University Gorontalo can provide support for students' knowledge and skills, especially problem solving, so the results of this research can be used as a basis for improving the curriculum so that implementation is even better.

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