

# **APPLICATION OF CBL AND PJBL LEARNING METHODS IN UNDERGRADUATE MANAGEMENT STUDY PROGRAM STATE UNIVERSITY OF JAKARTA**

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## **Abstract**

**Education is a means or bridge for humans to develop their potential through a learning process. The quality of education in Indonesia has recently become a big concern. This is because there are several problems in the education system in Indonesia which cause a decline in the quality of education in Indonesia. These include weaknesses in education management, outdated public thinking, low quality of educational resources, and weak learning assessment standards. In order to improve the education system, especially in the Bachelor of Management study program at Jakarta State University, a solution is needed to deal with this problem. One method that can be used to improve the education system is the implementation of project based learning and challenge based learning.**

**Keyword:** Education; Education System; Challenge Based Learning; Project Based Learning

## **1. Introduction**

Developments in human thinking in setting boundaries regarding the meaning and meaning of education show continuous change. These changes are based on various insights and changes in this field related to the increase in the number of components of the existing education system (Rahman et al., 2022). Education is a conscious effort to maintain cultural heritage from generation to generation. Education positions this generation as a role model for the teaching of previous generations. Until now, there is no limit to explaining education as a whole because its nature is as complex as the purpose of education, namely humans (Rahman et al., 2022).

Education is a means or bridge for humans to develop their potential through a learning process. Education is expected to give birth to the next generation of the nation who is intelligent and skilled, a generation who is able to take advantage of existing progress. Without education there is no progress (Siti Fadia Nurul Fitri, 2021).

The quality of education in Indonesia has recently become a big concern. This is because there are several problems in the education system in Indonesia which cause a decline in the quality of education in Indonesia. These include weaknesses in education management,

gaps in educational facilities and infrastructure between urban and rural areas, weak government support, outdated community thinking, low quality of educational resources, and weak learning assessment standards. Several factors above contribute to the low quality of education in Indonesia. Apart from the above, there are also problems in learning. This is also one of the causes of the decline in the quality of education in Indonesia (Siti Fadia Nurul Fitri, 2021).

In order to improve the education system, especially in the Bachelor of Management study program at Jakarta State University, a solution is needed to deal with this problem. One method that can be used to improve the education system is the implementation of project based learning and challenge based learning. In general, project based learning is a project-based learning method designed to develop the knowledge and skills of participating students (Kusnandar & Listyani, 2023). Challenge based learning is a learning model that involves the participation of teachers, students and group friends, where in the process students will be given contextual problems (Luthfiralda, 2022).

Based on the background above, the aim of this research is to test the application of challenge based learning and project based learning methods in the Bachelor of Management study program at Jakarta State University.

## 2. Literature Review

Human thinking continues to change in setting boundaries about the meaning and meaning of education. Therefore, it is necessary to have learning methods that are in accordance with current developments, namely CBL and PJBL learning methods. Project based learning is a project-based learning method designed to develop the knowledge and skills of participating students (Kusnandar & Listyani, 2023). Challenge based learning is a learning model that involves the participation of teachers, students and group friends, where in the process students will be given contextual problems (Luthfiralda, 2022).

## 3. Material and Method

This research was designed using quantitative methods. The survey method is a research method that uses questionnaires as the main tool for collecting data (Sitoyo & Sodik, 2015). The population in this study were students from the Bachelor of Management study program at Jakarta State University, class 2020 - 2023, related to the application of challenge based learning and project based learning methods.

## 4. Result

A survey was conducted among undergraduate Management study program students for the 2020 - 2023 class regarding the application of CBL and PJBL learning methods with the following results:

### Challenge Based Learning (CBL)

**Table 1.** Indicator of the identification variable

No	Variable	Indicator	Information	Frequency	Percent
		Students learn to work together with lecturers and their groups on situational problems to gain the	Strongly Disagree	0	0
			Slightly Disagree	0	0

1	Identification	deepest knowledge to solve problems using the CBL teaching method	Slightly agree	0	0
			Agree	4	50
		Students face situations that are open, realistic, and require real consequences in the CBL teaching method	Strongly agree	4	50
			Strongly Disagree	0	0
			Slightly Disagree	0	0
			Slightly agree	0	0
			Agree	5	62,5
		In the CBL teaching method students can find solutions in real action.	Strongly agree	3	37,5
			Strongly Disagree	0	0
			Slightly Disagree	0	0
			Slightly agree	0	0
		In the CBL teaching method students analyze, design, develop and implement optimal solutions to solve challenges.	Agree	6	75
			Strongly agree	2	25
			Strongly Disagree	0	0
			Slightly Disagree	0	0
		In the CBL teaching method, the role of the lecturer is as a trainer, assisting in search, and learning designer.	Slightly agree	0	0
			Agree	6	75
			Strongly agree	2	25
			Strongly Disagree	0	0
			Slightly Disagree	0	0
	Slightly agree	0	0		
	Agree	7	87,5		
	Strongly agree	1	12,5		
	Strongly Disagree	0	0		
	Slightly Disagree	0	0		

Based on the data above, there are 5 question indicators. The results are as follows:

1. 50% of students strongly agree and 50% of students agree. This shows that the majority of students feel that they learn to work together with lecturers and their groups in the CBL teaching method.
2. 62.5% of students agreed and 37.5% of students strongly agreed that they faced situations that were open, realistic, and required real consequences in the CBL teaching method.
3. In the CBL teaching method, students can find solutions in real action, with the result that 75% of students agree and 25% of students strongly agree. This shows that the majority of students feel that they can find solutions in real action in the CBL teaching method.

4. 75% of students agree and 25% of students strongly agree that they are able to analyze, design, develop and implement optimal solutions to solve challenges in the CBL teaching method.
5. 87.5% of students agreed and 12.5% of students strongly agreed regarding the role of lecturers in the CBL teaching method, namely as trainers, assisting in research, and learning designers.

**Table 2.** Indicator of the satisfaction variable

No	Variable	Indicator	Information	Frequency	Percent
2	Satisfaction	The teaching methods used in CBL are very effective and useful	Strongly Disagree	0	0
			Slightly Disagree	0	0
			Slightly agree	1	12,5
			Agree	4	50
			Strongly agree	3	37,5
		CBL provided me with various learning materials and group learning activities	Strongly Disagree	0	0
			Slightly Disagree	0	0
			Slightly agree	0	0
			Agree	5	62,5
			Strongly agree	3	37,5
		I enjoy how my lecturer teaches using the CBL teaching method	Strongly Disagree	0	0
			Slightly Disagree	0	0
			Slightly agree	3	37,5
			Agree	3	37,5
			Strongly agree	2	25
		The learning materials used in the CBL teaching method can help and motivate me to learn	Strongly Disagree	0	0
			Slightly Disagree	0	0
			Slightly agree	0	0
			Agree	6	75
			Strongly agree	2	25
The way the lecturer teaches using the CBL teaching method suits the way I learn	Strongly Disagree	0	0		
	Slightly Disagree	0	0		
	Slightly agree	1	12,5		
	Agree	5	62,5		
	Strongly agree	2	25		

Based on the data provided, the majority of students feel that the CBL teaching method is effective and useful. This is proven by the percentage of students who agree and strongly agree with each question:

1. CBL teaching method: 87.5%
2. Variety of learning materials and activities: 100%
3. Likes for lecturers' teaching methods: 62.5%

4. Ease of learning with the CBL teaching method: 100%
5. Conformity of teaching methods with learning methods: 87.5%

**Table 3.** Indicator of the confidence variable

No	Variable	Indicator	Information	Frequency	Percent
3	Confidence	I am confident that I can master the material by using the CBL teaching method presented by my lecturer	Strongly Disagree	0	0
			Slightly Disagree	0	0
			Slightly agree	0	0
			Agree	6	75
			Strongly agree	2	25
		I believe that this CBL teaching method covers the important content needed for mastery of the learning curriculum	Strongly Disagree	0	0
			Slightly Disagree	0	0
			Slightly agree	0	0
			Agree	6	75
			Strongly agree	2	25
		I am confident that I can develop the skills and knowledge of CBL teaching methods to perform the required tasks	Strongly Disagree	0	0
			Slightly Disagree	0	0
			Slightly agree	0	0
			Agree	7	87,5
			Strongly agree	1	12,5
		My lecturer uses useful learning resources in using the CBL teaching method	Strongly Disagree	0	0
			Slightly Disagree	0	0
			Slightly agree	0	0
			Agree	6	75
			Strongly agree	2	25
The lecturer tells me what I need to learn about the content of the activities using the CBL teaching method during the lesson time	Strongly Disagree	0	0		
	Slightly Disagree	0	0		
	Slightly agree	0	0		
	Agree	4	50		
	Strongly agree	4	50		

Based on available data, the majority of students show high confidence in the CBL teaching method. This is proven by the percentage of students who agree and strongly agree with each question:

1. Ability to master the material: 100%
2. Existence of important content: 100%
3. Skills and knowledge development: 100%
4. Useful learning resources: 100%
5. Clarity of activity explanation: 100%

**Table 4.** Application of CBL in Courses

Applied to courses	Total	Percent
Analyze case studies	1	12.5%

Financial markets and institutions	1	12.5%
Business decision making, risk management	1	12.5%
Pkb, ecom	1	12.5%
All courses that lead to theory	1	12.5%
Others	3	37.5%
Total	8	100%

Based on the data above, it can be seen that the CBL method can be applied to various courses which are dominated by other subjects as much as 37.5%, Analyzing case studies 12.5%, Markets and institutions 12.5%, Business decision making and risk management 12.5%, PKB and Ecom 12.5 %, and All courses that lead to theory 12.5%.

**Table 5.** Application of CBL in Form

Applied in form	Total	Percent
Task	7	87.5%
Assignments, Midterm, Finalterm	1	12.5%
Total	8	100%

Based on the data above, it can be seen that the appropriate application of CBL is dominated by assignments with 7 respondents (87.5%) and Assignments, Midterm, Finalterm with 1 respondent (12.5%). In conclusion, the CBL method is very suitable to be applied in the form of assignments to students.

### **Project Based Learning (PJBL)**

**Table 6.** Indicator of the identification variable

No	Variable	Indicator	Information	Frequency	Percent
1	Identification	Students can build knowledge through work steps using the PJBL learning method	Strongly Disagree	1	6,7
			Slightly Disagree	2	13,3
			Slightly agree	2	13,3
			Agree	6	40

		Strongly agree	4	26,7
	Students can use the knowledge provided to carry out projects from lecturers	Strongly Disagree	1	6,7
		Slightly Disagree	2	13,3
		Slightly agree	1	6,7
		Agree	6	40
		Strongly agree	5	33,3
	Students are faced with real life situations, but problems are not found and solutions are needed in the PJBL teaching method	Strongly Disagree	1	6,7
		Slightly Disagree	3	20
		Slightly agree	1	6,7
		Agree	5	33,3
		Strongly agree	5	33,3
	In the PJBL teaching method students can produce products, representations or implementation of solutions	Strongly Disagree	1	6,7
		Slightly Disagree	1	6,7
		Slightly agree	2	13,3
		Agree	6	40
		Strongly agree	5	33,3
	In the PJBL teaching method students work on specific projects and connect the product with the learning process	Strongly Disagree	2	13,3
		Slightly Disagree	0	0
		Slightly agree	0	0
		Agree	6	40
		Strongly agree	7	46,7
	In the PJBL teaching method, the role of the lecturer is as a facilitator and organizes the course of the project	Strongly Disagree	1	6,7
		Slightly Disagree	1	6,7
		Slightly agree	1	6,7
		Agree	4	26,7
		Strongly agree	8	53,3

Overall, the data shows that the majority of students have a high ability to identify problems and find solutions in project-based learning (PJBL). This is proven by the percentage of students who agree and strongly agree with each statement:

1. Building Knowledge: 66.7%
2. Applying Knowledge: 73.3%
3. Facing Real Life Situations: 66.6%
4. Produce Products/Solutions: 73.3%
5. Working on Projects and Linking Products to Learning: 86.7%
6. Lecturer's Role as Facilitator: 80%

**Table 7.** Indicator of the satisfaction variable

No	Variable	Indicator	Information	Frequency	Percent
2	Satisfaction	The teaching methods used in PJBL are very effective and useful	Strongly Disagree	1	6,7
			Slightly Disagree	2	13,3
			Slightly agree	2	13,3

			Agree	4	26,7
			Strongly agree	6	40
		PJBL provided me with various learning materials and group learning activities	Strongly Disagree	3	20
			Slightly Disagree	0	0
			Slightly agree	2	13,3
			Agree	4	26,7
			Strongly agree	6	40
		I enjoy how my lecturer teaches using the PJBL teaching method	Strongly Disagree	1	6,7
			Slightly Disagree	2	13,3
			Slightly agree	5	33,3
			Agree	4	26,7
			Strongly agree	3	20
		The learning materials used in the PJBL teaching method can help and motivate me to learn	Strongly Disagree	1	6,7
			Slightly Disagree	3	20
			Slightly agree	2	13,3
			Agree	5	13,3
			Strongly agree	4	26,7
		The way the lecturer teaches using the PJBL teaching method suits the way I learn	Strongly Disagree	1	6,7
			Slightly Disagree	3	20
			Slightly agree	3	20
			Agree	3	20
			Strongly agree	5	33,3

Based on available data, the majority of students are satisfied with the PJBL teaching method. This is proven by the percentage of students who agree and strongly agree with each question:

1. Effective teaching methods: 66.7%
2. Variety of learning materials and activities: 66.7%
3. Likes for lecturers' teaching methods: 46.7%
4. Ease of learning with the PJBL teaching method: 40%
5. Conformity of teaching methods with learning methods: 53.3%

**Table 8.** Indicator of the confidence variable

No	Variable	Indicator	Information	Frequency	Percent
3	Confidence	I am confident that I can master the material by using the PJBL teaching method presented by my lecturer	Strongly Disagree	0	0
			Slightly Disagree	2	13,3
			Slightly agree	7	46,7
			Agree	3	20
			Strongly agree	3	20
		I am sure that this PJBL teaching method covers the important content needed for mastery of the learning curriculum	Strongly Disagree	1	6,7
			Slightly Disagree	1	6,7
			Slightly agree	4	26,7
			Agree	8	53,3

		Strongly agree	1	6,7
	I am confident that I can develop the skills and knowledge of PJBL teaching methods to perform the tasks required	Strongly Disagree	2	13,3
		Slightly Disagree	1	6,7
		Slightly agree	4	26,7
		Agree	5	33,3
		Strongly agree	3	20
	My lecturer uses useful learning resources in using the PJBL teaching method	Strongly Disagree	1	6,7
		Slightly Disagree	1	6,7
		Slightly agree	5	33,3
		Agree	8	53,3
		Strongly agree	0	0
	The lecturer tells me what I need to learn about the content of the activities using the PJBL teaching method during learning time	Strongly Disagree	1	6,7
		Slightly Disagree	1	6,7
		Slightly agree	4	26,7
		Agree	7	46,7
		Strongly agree	2	13,3

Overall, the data shows that the PJBL learning method applied by lecturers was well received by the majority of respondents. Respondents felt that this method helped them master the material, develop skills and knowledge, and understand the content of learning activities. This is proven by the percentage of students who agree and strongly agree with each question:

1. Ability to master the material: 40%
2. Existence of important content: 60%
3. Skills and knowledge development: 53.3%
4. Useful learning resources: 53.3%
5. Clarity of activity explanation: 60%

However, there are still some respondents who are still hesitant about this method. This may be caused by several factors, such as a lack of understanding of the PJBL method, or less than optimal learning experiences. It is important for lecturers to continue to evaluate and improve the application of the PJBL method so that it can meet the needs and expectations of all students.

**Table 9.** Implementation of PJBL in Courses

Applied to courses	Total	Percent
Accounting, business statistics, educational insights	1	6.7%

Applied to courses in financial markets and institutions, marketing management	1	6.7%
Digital entrepreneurship	1	6.7%
E-commerce management, risk management	1	6.7%
Creativity and innovation management, digital entrepreneurship, e-commerce management	1	6.7%
Create innovative products	1	6.7%
Introduction to accounting, business ethics, introduction to business, business statistics	1	6.7%
Pkb, mencom, creativity, risk management	1	6.7%
All	1	6.7%
Regarding implementation in the world of work, even all courses are suitable.	1	6.7%
Etc	5	33.3%
Total	15	100%

Based on the data above, it can be seen that the PJBL method can be applied to various subjects which are dominated by other subjects as much as 33.3%, accounting, business statistics, educational insight as much as 6.7%, markets and financial institutions, marketing management as much as 6.7%, digital entrepreneurship. as much as 6.7%, e-commerce management, risk management as much as 6.7%, management of creativity and innovation, digital entrepreneurship, e-commerce management as much as 6.7%, creating innovative products as much as 6.7%, introduction to accounting, business ethics, introduction to business, business statistics as much as 6.7%, PKB, mencom, creativity, risk management as much as 6.7%, all as much as 6.7%, and related to implementation in the world of work, even all subjects are suitable as much as 6.7%.

**Table 10.** Implementation of PJBL in Form

Applied in form	Total	Percent
Task	8	53.3%
Midterm, Finalterm	2	13.3%
Assignments, Midterm, Finalterm	5	33.3%
Total	15	100%

Based on the data above, it can be seen that the appropriate implementation of PJBL is dominated in the form of assignments with a total of 8 respondents (53.3%), Assignments, Midterm, Finalterm as many as 5 respondents (33.3%), and Midterm, Finalterm as many as 2 respondents (13.3%). The conclusion is the method PJBL is very suitable to be implemented in the form of assignments for students. But overall the PJBL method can be applied in the form of Assignments, Midterm, or Finalterm.

## 5. Discussion

This research shows that CBL and PJBL really help students master the material, develop skills and knowledge, and understand learning activities. This is in line with research conducted by (Anggraini & Suyatno, Tengsoe Tjahjono, 2024) Language and Literature Entrepreneurship courses are included in the Indonesian Language Education Study Program. Using the challenge based learning (CBL) learning model, this course is taught by a team of lecturers who have entrepreneurial competencies. The results of distributing questionnaires, focus groups, and interviews with lecturers regarding the learning models used, including CBL, were studied. Students assess that the Language and Literature Entrepreneurship course is useful for students. And for PJBL, this is supported by the results of previous research conducted by (Hakim et al., 2021) The learning outcomes of PGSD students in the second semester of the 2019/2020 academic year in elementary science learning courses are positively influenced by the project-based learning model (PjBL).

## 6. Conclusion, Implication, and Recommendation

So based on all the survey results related to the responses of Bachelor of Management students from the 2020-2023 class of Jakarta State University to learning methods, both CBL and PJBL methods, they can be well accepted by the majority of students. These two methods can help students master the material, develop skills and knowledge, and understand the content of learning activities.

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