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The Effectiveness of Blended Learning Assisted by Collaboration of Edmodo Probing-Prompting in Improving Learning Outcomes and Critical Thinking Ability of Students at Universitas Madura

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Abstract

Technological developments have a positive impact on education. Students are required to have knowledge and skills as a result of learning. However, the results of teaching and learning conducted at the University of Madura have not achieved the expected learning objectives. The purpose of the study was to determine the effectiveness of blended learning assisted by probing-prompting Edmodo collaboration in improving learning outcomes and critical thinking skills. This research is quasi-experimental with a 2x2 factorial design. Determination of the sample using random sampling from 4 odd-even classes with a total of 65 students majoring in Accounting at the University of Madura. Data collection techniques used pretest-posttest with the help of the IBM Statistics-24 application. The normality test used one-sample Kolmogorov-Smirnov and the homogeneity test used Levene with a significance of 5%. Hypothesis testing with two-way analysis of variance based on a 2x2 factorial design. The research data showed an increase in learning outcomes and critical thinking skills in the BLPP class from pretest to post-test was 0.39 and 0.80 with a total of 1.19 percent. While the PPF2F class increased from pretest to post-test by 0.42 and 0.63 with a total of 1.05 percent. Based on the results of the research data analysis, it was concluded that the blended learning model assisted by the probing-prompting collaboration Edmodo was effective in improving student learning outcomes and critical thinking skills in introductory accounting courses. The increase obtained in addition to internal factors is also due to the advantages that exist in the BLPP. Therefore, the selection of models and approaches used is one of the determinants of achieving learning objectives. So, the BLPP model is a learning model that can influence improving learning outcomes and critical thinking skills.

***Keywords**: Blended Learning, Probing-Prompting, Learning Outcomes, Critical Thinking*

INTRODUCTION

The rapid advancement of information technology and science in various aspects of life, including in the field of education, is an effort to bridge the present and the future. Likewise, education is faced with the challenge to produce quality human resources to face various competitive challenges (Effendi and Zhuang, 2005). Graduates who have the knowledge and skills, including technology, become a new standard for life as a learning outcome of the educational process (Nurseto dan Alwi, 2022).

Along with the rapid development of information technology, education is one of the areas affected by it. According to Musdalifa et al, the use of technology in education has become important to improve the quality of the output of the learning process (Musdalifa, Ramdani, dan Danial, 2020). This is following the opinion of Inggriyani et al, in the learning process, students are required to have mastery of ICT, be creative, critical, and able to solve problems according to the demands of the times, namely the learning process using technology (Inggriyani, Hamdani, and Dahlan, 2019). So that learning takes place effectively, efficiently, and more efficiently and learning outcomes can be improved (Wena, 2014). The success of learning activities cannot be separated from the design of models or methods that are adapted to the demands of the times and the 2013 curriculum which emphasizes competence, critical thinking skills, creativity, collaboration, and communication. (Ambar Ningsih, Suana, and Maharta, 2018).

However, the facts on the ground are mostly applying the classical method with lectures. Teacher Centered Learning places educators as actors/subjects and students as objects. If the lecture method is continuously used as a learning method or the method used is inappropriate and ineffective, it can lead to low learning outcomes (Widiara, 2018). Low ability because they are not used to being trained to think outside the context available from educators (Suhendra dan Sutiani, 2018). The TIMSS survey results show that the Indonesian generation is ranked 45th out of 48 countries. Indonesia's participation in PISA 2015 from a total of 70 countries, Indonesia was ranked 62 with an average score of 403. Based on the results of the survey, students' cognitive abilities and critical thinking skills were at a low level.

Based on the results of interviews and observations at the Faculty of Economics, Universitas Madura (UNIRA) the lecturer in charge of introductory accounting courses, indirectly said that the delivery of accounting material is more dominant in class meetings with students receiving transfers from the supporting lecturer. The researcher assumes that this is most likely due to the burden of study achievement received by the supporting lecturers and the limited hours of lectures so that the study achievement target is less than optimal and low. In addition, the delivery of material during the COVID-19 pandemic is presented in full online using the WhatsApp application.

Data were obtained from the supporting lecturer, the test results for the second semester of 2020 students in the Introduction to Accounting course, Faculty of Economics, which consisted of 4 odd-even class A and odd-even class B had an average score below 55.00. Referring to information from the supporting lecturer, this figure has not yet reached the minimum pass limit for the course. This shows that students have not had good learning outcomes. This low number indicates to make improvements in the teaching and learning process by making learning innovations easier, learning outcomes (outcomes) are maximized following the times that are needed by students in developing themselves. Then, the information obtained related to the teaching and learning process, in the next semester, lecturers at Madura University are advised to use blended learning. The learning process that combines face-to-face and online can certainly help lecturers and students maximize the teaching and learning process. Of several learning models, the BL model which collaborated with the Probing-Prompting technique can be used to improve student learning outcomes and critical thinking skills.

Blended learning is a learning method that combines several approach methods in offline and online learning to achieve the objectives of the learning process (Noviansyah, 2015). Integrating learning programs in different formats in achieving learning objectives (Rusman, 2013). Blended learning is not entirely online learning that replaces face-to-face in class, but complements provide convenience and overcomes material that has not been conveyed to students via the internet. This method is very efficient because, in addition to students getting face-to-face learning, they can also access the material provided online. With this, lecturers can use technology for internet access to provide information, reading materials, and subject matter for students. It should be noted that the success of blended learning does not happen automatically, the main factors for the success of blended learning are considering pedagogy and instructional design, how to facilitate interaction between students, how to motivate, and organize the best material to be delivered.

Furthermore, one of the supporting models of BL is Probing-Prompting, students construct their existing knowledge by way of educators asking questions that are exploring and guiding. (Kurniasari dan Kusmayadi, 2016), so that the learning process is more active and thinking (Suhendra dan Sutiani, 2018). The Probing-Prompting learning model can be combined and packaged with various methods, techniques, and other supporting uses (Swarjawa, Suarjana, & Gearminah, 2013), including the Edmodo platform. According to

Angraini, et al. Edmodo is an educational site that allows students to access uploaded learning content (lesson materials, learning links and videos, assignments, and grade notifications) from educators, and makes it easier for educators and students to communicate online classroom environment. (Angraini, Muharini, and Lestari, 2018).

The research that has been done by Luh and Ayuning on the application of BL assisted by digital comics can improve critical thinking skills and higher learning outcomes, is shown in the results of their research (Luh and Ayuning, 2018). Furthermore, research on BL has been studied by Sari that BL can increase learning independence, and critical thinking skills and improve student learning achievement (Sari, 2013). Then Alfi, et al in their research said that the application of problem-based learning with blended learning affected students' critical thinking skills (Alfi, Sumarmi, and Amirudin, 2016). And the Probing-Prompting research has also been carried out by Megasari, et al said that there was an increase in the critical thinking ability of KIR members from pretest-posttest after Probing-Prompting learning was applied with the help of video media. (Megasari, Sundaryono, and Firdaus, 2018).

The difference between the research with Luh and Ayuning lies in the media using digital comic media, while the researcher uses Edmodo. Then Sari's research is classroom action research, while the research to be carried out is experimental. The difference between the study and Alfi et al lies in the dependent variable, namely critical thinking ability and learning outcomes, while Alfi et al only think ability. Then on the independent variable Alfi, et al. used BL with PBL, while the researcher used BL with the Probing-Prompting technique. Furthermore, Megasari, et al. research differences lie in the use of independent variables. Megasari research et al did not use BL, while the research that will be conducted uses BL. Based on the explanation above, the purpose of this study is to prove the effectiveness of BL assisted by Edmodo Probing-Prompting collaboration in improving student learning outcomes and critical thinking skills of students Universitas Madura (UNIRA).

RESEARCH METHODS

This study is a quasi-experimental study using a 2x2 factorial design with a pretest-posttest nonequivalent control group design (Creswell, 2010). Factorial design is defined as a research structure in which two or more variables are confronted with each other to find out their consequences independently and interactively on the dependent variable. The factorial design divides groups based on the number of treatments and groups to be studied. The target of this research is 2nd-semester students consisting of 4 odd-even classes with a total of 65 and currently taking an Introduction to Accounting course at Madura University. The sampling technique used for this research is random sampling. Researchers use data from lecturers and initial test results as a benchmark in forming experimental and control classes so that each has an input ability that is close to the same.

The technique used to obtain research data is to give test questions before and after treatment. The aim is to find out the difference in learning outcomes before and after being treated with blended learning assisted by Edmodo in collaboration with probing-prompting techniques on the subject matter of inventory recording systems in trading companies. The test questions have given consist of two types, namely multiple choice questions as many as 20 items for learning outcomes tests, and 5 essay questions for critical thinking skills tests that have been tested for validity and reliability. The data analysis technique was to compare the learning outcomes and students' critical thinking skills from the results of the pretest and posttest classes A and B (odd-even) using scoring guidelines. For multiple choice questions,

the correct answer scores 5 and the wrong answer scores 0, while the description questions score between 1 and 5 according to each indicator.

Test requirements analysis using normality and homogeneity tests. This normality test uses the one-sample Kolmogorov-Smirnov test with a significance level of 5%. While the homogeneity test used Levene with a significance level of 5%. Hypothesis testing was carried out with the two-way analysis of variance (two-way ANOVA) based on a 2x2 factorial design. The influence of the independent variable on the dependent variable is based on an error rate of 5%. Then, the free sample t-test was conducted to prove the difference in the learning outcomes of the two classes.

RESULTS AND DISCUSSION

The results of the pretest data study were used as initial data input about the research subject. Student pretest results are presented as follows:

Table 1. Pretest Learning Outcomes.

Descriptive Statistics			
Learning Models	**Mean**	**Std. Deviation**	**N**
Blended Learning (BLPP)	52,34	10,394	32
Probing Prompting (PPF2F)	48,94	11,710	33
Total	50,62	11,128	65

Source: Data processed by researchers 2021

Based on the pretest data in table 1, shows the average value and standard deviation which descriptively have close learning outcomes, both in the blended learning class assisted by Edmodo collaboration probing prompting (BLPP) or the face-to-face probing prompting class (PPF2F). From the results of the data normality test by Kolmogorov Smirnov, the pretest value of the choice questions has a significance value of 0.127. This result is greater than 0.05 so that the data is declared normally distributed. The homogeneity test obtained a significant number of 0.234> 0.05, so the data was declared homogeneous. Then the results of the normality and homogeneity test on the description with a value of 513> 0.05 and a value (Sig) .126> 0.05 so that the data is declared to be normally distributed and has a homogeneous variance.

Table 2. Tests of Between-Subjects Effects

Tests of Between-Subjects Effects					
Dependent Variable: Pretest Learning Outcomes					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	895,499[a]	3	298,500	2,590	,061
Intercept	166717,291	1	166717,291	1446,646	,000
Ability	412,982	1	412,982	3,584	,063
Learning Model	216,904	1	216,904	1,882	,175
Ability * Learning Model	303,448	1	303,448	2,633	,110
Error	7029,886	61	115,244		
Total	174450,000	65			
Corrected Total	7925,385	64			
a. R Squared = ,113 (Adjusted R Squared = ,069)					

Source: Data processed by researchers 2021

Based on table 2, the pretest data on learning outcomes in both classes before being given treatment with high and low ability levels showed the value of F_{count} = 3.584 with a significant number (Sig) = 0.063 in the realm of ability. This result is greater than 0.05 (p>0.05), it can be said that there is no difference between the two classes when viewed from the realm of ability. Furthermore, from the realm of learning models, the value of F_{count} = 1.882 with a significance value (Sig) of 0.175. This result is greater than 0.05 (p>0.05) meaning that the two classes have no difference in learning outcomes.

Table 3. T-Test Data Pretest Two Independent Samples

Independent Samples Test								
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Pretest Choice Questions	Equal variances assumed	1,441	,234	1,238	63	,220	3,404	2,749
	Equal variances not assumed			1,240	62,521	,219	3,404	2,744

Source: Data processed by researchers 2021

Based on table 3, the results of the t-test of two independent samples, the significance value of the pretest data is 0.234 (p>0.05). This means that the data from the pretest class BLPP and PPF2F do not have a significant difference.

Table 4. Critical Thinking Ability Pretest.

Descriptive Statistics			
Learning Models	**Mean**	**Std. Deviation**	**N**
Blended Learning (BLPP)	44,75	6,998	32
Probing Prompting (PPF2F)	45,70	8,487	33
Total	45,23	7,743	65

Source: Data processed by researchers 2021

Based on table 4, the critical thinking ability pretest data with description questions shows the average value which is descriptively close to the same. The data from the normality test with Kolmogorov Smirnov obtained a significance value of 0.513. This result is greater than 513> 0.05 so that both data are declared to be normally distributed. Then the results of the homogeneity test have a significance value of 0.126> 0.05, and these results can be interpreted as homogeneous data. The results of the two-way analysis of variance (two-way ANOVA) based on the 2x2 factorial design are presented in table 5.

Table 5. Tests of Between-Subjects Effects

Tests of Between-Subjects Effects					
Dependent Variable: Pretest Berpikir Kritis					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	100,012[a]	3	33,337	,544	,654
Intercept	131576,885	1	131576,885	2147,460	,000
Ability	83,059	1	83,059	1,356	,249
Learning Model	12,721	1	12,721	,208	,650
Ability * Learning Model	2,026	1	2,026	,033	,856
Error	3737,527	61	61,271		
Total	136816,000	65			

Corrected Total	3837,538	64			

a. R Squared = ,026 (Adjusted R Squared = -,022)

Source: Data processed by researchers 2021

Based on table 5, the critical thinking ability pretest data in the realm of ability shows the value of F_{count} = 1.356 with a significance value of 0.249. In the realm of the learning model F_{count} = 0.208 with a significant number of 0.650. This result is greater than 0.05 (p>0.05). This means that the two classes do not have differences in critical thinking skills.

Table 6. T-Test Results for Pretest Data of Two Independent Samples

Independent Samples Test								
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Pretest Question Description	Equal variances assumed	2,401	,126	-,490	63	,626	-,947	1,933
	Equal variances not assumed			-,491	61,430	,625	-,947	1,927

Source: Data processed by researchers 2021

Based on table 6, the results of the t-test of two independent samples, the significant value for the pretest of essay questions in the BLPP and PPF2F classes did not have a significant difference (p>0.05). Research data on student posttest results on learning outcomes and critical thinking skills are presented in the table below:

Table 7. Posttest Data on Learning Outcomes

Descriptive Statistics					
	Ability	Learning Models	Mean	Std. Deviation	N
Learning Outcomes	High	Blended Learning (BLPP)	73,33	6,726	15
		Probing Prompting (PPF2F)	65,67	9,037	15
		Total	69,50	8,744	30
	Low	Blended Learning (BLPP)	75,88	6,900	17
		Probing Prompting (PPF2F)	73,06	8,768	18
		Total	74,43	7,931	35
	Total	Blended Learning (BLPP)	74,69	6,832	32
		Probing Prompting (PPF2F)	69,70	9,515	33
		Total	72,15	8,614	65

Source: Data processed by researchers 2021

Based on table 7 the learning outcomes of the Edmodo-assisted blended learning class in collaboration with probing-prompting (BLPP) have an average score with high ability

descriptively higher than the probing prompting class without blended learning (PPF2F). Meanwhile, for low-ability learning outcomes, BLPP has an average value that is close to the similarity to PPF2F.

Table 8. Critical Thinking Ability Posttest Data

Descriptive Statistics					
	Ability	Learning Models	Mean	Std. Deviation	N
Critical thinking	High	Blended Learning (BLPP)	78,53	12,524	15
		Probing Prompting (PPF2F)	72,67	12,998	15
		Total	75,60	12,891	30
	Low	Blended Learning (BLPP)	82,24	8,599	17
		Probing Prompting (PPF2F)	76,00	8,677	18
		Total	79,03	9,080	35
	Total	Blended Learning (BLPP)	80,50	10,607	32
		Probing Prompting (PPF2F)	74,48	10,805	33
		Total	77,45	11,048	65

Source: Data processed by researchers 2021

Based on table 8, the post-test score data for critical thinking skills with high abilities in the BLPP class) has a higher average value than the PPF2F class. Meanwhile, at the low level of ability, the BLPP class showed descriptively higher average scores than the PPF2F class.

Table 9. Pretest to Posttest Data

Variable	Class	*Pretest* (*mean*)	*Post-test* (*mean*)	Difference	Increase (%)
Learning Outcomes	BLPP	52,34	72,58	20,23	0,39
	PPF2F	48,94	69,70	20,76	0,42
Critical Thinking	BLPP	44,75	80,50	35,75	0,80
	PPF2F	45,70	74,48	28,79	0,63

Based on the data in table 9, the BLPP class showed that learning outcomes from pretest to posttest had an increase of 0.39 percent. While the PPF2F class for learning outcomes has an increase of 0.42 percent. Then for the critical thinking variable, the BLPP class increased by 0.80 percent. While the PPF2F class increased by 0.63 percent. Learning outcomes in the BLPP and PPF2F classes have a percentage increase that is almost the same, while the critical thinking skills in the BLPP class have a higher percentage increase compared to the PPF2F class.

The results of the post-test data normality test with Kolmogorov Smirnov on multiple choice questions with a significance value of 0.057. While in the description of the significant value of 0.275. This result is above 0.05 so it can be stated that the research data is normally distributed. The results of the homogeneity test using the Test of Homogeneity of Variances for the choice of questions with a value of (sig)> 0.222 and a description of (sig)> 0.804. Thus it can be stated that the data on learning outcomes and critical thinking skills are homogeneous.

The results of hypothesis testing obtained data results as in the table below:

Table 10. Tests Of Between-Subjects Effects

Tests of Between-Subjects Effects					
Dependent Variable: Posttest of Learning Results					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.

Corrected Model	903,086[a]	3	301,029	4,775	,005	a. R Squared = ,190 (Adjusted R Squared = ,150)
Intercept	334695,530	1	334695,530	5309,345	,000	
Ability	398,696	1	398,696	6,325	,015	
Learning Models	444,519	1	444,519	7,051	,010	
Ability * Learning Model	94,563	1	94,563	1,500	,225	
Error	3845,376	61	63,039			
Total	343150,000	65				
Corrected Total	4748,462	64				
Dependent Variable: Posttest of Critical Thinking						
Corrected Model	787,936[a]	3	262,645	2,281	,088	a. R Squared = ,101 (Adjusted R Squared = ,057)
Intercept	386537,752	1	386537,752	3356,831	,000	
Ability	199,810	1	199,810	1,735	,193	
Learning Models	591,240	1	591,240	5,135	,027	
Ability * Learning Models	,549	1	,549	,005	,945	
Error	7024,125	61	115,150			
Total	397676,000	65				
Corrected Total	7812,062	64				

Source: Data processed by researchers 2021

Based on table 10, the results of the analysis of differences in student learning outcomes in introductory accounting courses between groups with high and low levels of ability show the value of F_{count} = 6.325 with a probability number (p) = 0.015 which is smaller than the value (p <0.05). These results indicate that there are differences in introductory accounting learning outcomes between BLPP and PPF2F students in terms of ability. Furthermore, the research results in terms of the realm of the learning model. The learning outcomes of students' introductory accounting courses between the BLPP and PPF2F groups with high and low ability levels are presented in table 9, showing the value of F_{count} = 7.051 with (p), 0.010. Because the probability value is smaller (p<0.05). This can be interpreted that there are differences in learning outcomes in the two classes, namely BLPP and PPF2F.

The results of data analysis for the next variable are students' critical thinking skills in terms of abilities. Based on the results of the analysis presented in table 9, at the level of ability (high and low) the value of F_{count} = 1.735 with probability (p) = 0.193. These results indicate that there is no difference in thinking ability in BLPP and PPF2F classes. Then, the next difference in thinking abilities is viewed from the realm of the learning model. The results of data analysis from BLPP and PPF2F value F_{count} = 5.135 with a probability (p) of 0.027 under 0.05. From these results, it can be concluded that there are differences in critical thinking skills between BLPP and PPF2F classes.

First, based on the results of research, the application of Edmodo-assisted Blended Learning in collaboration with Probing-Prompting (BLPP) is better in improving learning outcomes, compared to the Probing-Prompting model where the learning is carried out face-to-face or face-to-face (PPF2F). The combination of all the elements in the BLPP provides findings that prove that the model is very effective for use in the learning process than the PPF2F model.

Edmodo-assisted Blended Learning combined with the Probing-Prompting technique is superior, especially in student developmental learning because the experience gained can provide knowledge, skills, and competencies for themselves regardless of distance and time in achieving learning goals (Ekawati, 2018). The teaching and learning process is more active,

participants have the opportunity to organize their knowledge, develop, and can digest information well. Implementation of learning with blended learning requires students to study more effectively, hone skills according to the needs of the world of work, and also trigger creativity in themselves (Mifrahi, 2019).

BLPP encourages students to be active and build their knowledge, subjectively, dynamically and develop themselves independently. Process and understand information, so that students have their own learning experience. Building knowledge based on knowledge from experience. According to Degeng (2005: 156), learning outcomes are the result of various impacts that can serve as reference indicators of value on the use of learning methods in different conditions. BLPP is superior, especially in developmental learning because BLPP has a combination of media in delivery. One of them is the use of Blended Learning (online and offline) which is highly recommended to be applied, especially in universities to improve pedagogic practice, access, and flexibility in learning (Mehar and Jassar, 2020). Because online learning is very trendy among students, especially during the current pandemic. Students get the opportunity to receive more explanations from lecturers with unlimited time. Lecturers can carry out online learning anywhere and anytime which is of course very efficient.

A study conducted by Pratiwi and Chasanah said that the participation of participants in blended learning is very important because it affects the improvement of the learning experience, and self-confidence creates a strategic mix between online and face-to-face learning that improves learning outcomes including also in developing soft skills. (Pratiwi dan Chasanah, 2018). Mixed learning (face-to-face and online) that is presented in universities and added as a technology-based curriculum is currently emerging as a reinforcement, and improvement of teaching and learning so that it affects academic improvement (Mehar and Jassar, 2020). In line with Dao's findings, the trend of transforming learning model training on campus by utilizing technology brings convenience that has an impact on educational institutions by combining online and face-to-face which creates more effective learning and a better learning experience as expected. (Dao, 2020). However, its effectiveness largely depends on how the lecturer designs and guides the offline and online learning experiences. So that the final target between lecturers and students in teaching and learning collaboration becomes successful, strengthening of pedagogical strategies can be increased by being practiced/used consistently. Teaching and learning activities that are facilitated by integrating various components that are used as learning media such as applications or the web, as well as textbooks in electronic and printed form (face-to-face learning), will have a positive impact on independent study habits so that the quality of understanding the material is deeper which will certainly have an impact on the achievement of better learning outcomes.

Second, based on the results of the study, the application of BLPP showed a better effect on critical thinking skills than that applied by PPF2F, from these findings proved that the class that collaborated or combined the elements contained in the BLPP was more effective than the PPF2F model. The results of the study seen in the realm of the learning model of the critical thinking ability variable showed a significant value. This means that the learning model between BLPP and PPF2F has a significant influence on students' critical thinking skills. This happens because the Blended Learning teaching and learning process is carried out asynchronously and synchronously using the Probing-Prompting technique (collaborative).

In the asynchronous section, students are given non-printed (electronic) course material which is submitted by the lecturer through an Edmodo account so that students can study the material independently first. The learning process applies the probing-prompting technique by providing a series of questions that guide and encourage students to think so that they arrive at the subject matter of the material that is the goal of learning. For online class sessions, lecturers' questions are asked through an Edmodo account, while in offline sessions (face-to-

face classes) some guiding and encouraging questions are asked in a class by randomly pointing. This will have an impact on encouraging the desire to learn to understand the material on their own as a warm-up for their thinking.

According to Ibrahim and Nat, blended learning accompanied by probing from an educator can increase learning independence and use technology to search for wider literature, especially in the university environment (Ibrahim and Nat, 2019). This is in line with the research results revealed by Fadhilatunisa, et al that blended learning for introductory accounting courses is suitable for use by lecturers because it has a positive impact on the output (Fadhilatunisa, Fakhri, and Rosidah, 2020). In addition, the application of Blended Learning assisted by Edmodo can develop critical thinking skills which can be seen in the courage to argue (Wahyuni, Sanjaya, Erman, and Jatmiko, 2019), both verbally and in written form. It is a process of forming thinking skills that takes time to practice and get used to. Edmodo-based Blended Learning is very helpful in teaching and learning activities, especially regarding conceptual accounting. According to Fauziyah and Triyono, online learning (Edmodo) is effective to be applied during this pandemic, through this platform educators can present, send teaching materials and add time (online classes) to discuss related material (Fauziyah & Triyono, 2020). The combination of Blended Learning, Edmodo, and other techniques in learning creates convenience and comfort for users such as educators and students and is effective in improving their abilities. (Yanti, Sugiharta, and Matematis, 2019).

Second, BLPP is better than PPF2F in improving critical thinking skills because blended learning uses probing-prompting techniques. This technique encourages students to understand the material first because of the requirements for questions that explore and guide. BLPP in online learning is expected to be encouraged and accustomed to learning to think. This will certainly have a positive impact on cognitive development. In online learning, the name mentioned is required to provide answers in the comments column or direct message through their respective Edmodo accounts, while in offline classes they present it in front of students. Given the accounting material that requires reasoning, logic, and calculations, it is necessary to do a lot of practice answering questions and understanding the material in detail. The more often they do practice solving problems, reasoning, and counting, the higher their thinking ability. This can be seen from the activity and the ability to answer questions. Megasari, et al in their research argue that the probing-prompting technique combined with the help of video media can improve their thinking skills which can be seen from the optimal understanding of the material (Megasari, Sundaryono, and Firdaus, 2018). In addition, this technique can be applied to participants who have the same initial ability, so that collaboration occurs that can activate the class and increase creativity in thinking. In line with Usmiati's opinion that the ability to think that exists during and after learning by applying the probing-prompting technique is one of the outputs resulting from the advantages of this technique (Usmiati A, 2018).

Probing-Prompting is a learning technique that is quite effective to use because it is participant-centered and can be packaged with various methods, strategies, and the use of other aids such as technology appropriately according to the learning objectives. Different learning strategies integrated into blended learning have a positive impact in addition to the course of learning, increasing knowledge, and skills as well as terms of competence (Ekawati, 2018). This opinion is also reinforced by the results of research by Rahmawati and Jayanti that learning using the Edmodo-assisted Probing-Prompting technique in Blended Learning is very good when applied to achieve better learning objectives (Rahmawati and Jayanti, (2019). The combination of Edmodo-based Blended Learning (online) using the Probing-Prompting technique that can activate students in the teaching and learning process is an innovation to feel a new atmosphere in learning, better learning achievement, increasing level of thinking skills

and student psychomotor as well. increase. Looking at the percentage of student achievement in critical thinking skills found in terms of the realm of learning models, namely the flexibility of thinking obtained by students is closely related to the advantages that exist in the Probing-Prompting technique.

Learning in blended learning based on the theory of social constructivism developed by Vygotsky is collaborative learning combined with various learning strategies (Thobroni, 2017). Combining pedagogical approaches such as learning theories of cognitivism and constructivism in learning by Abdullah, (2018), and Rusman, et.al (2012: 243), so that the model in addition to helping individuals to develop their potential development zone through learning also has broad opportunities to enrich the learning experience, with this increase the quality of teaching and learning will also improve.

Then, this model also unifies synchronous and asynchronous learning according to the exact learning objectives, and a learning process that requires participants to think and act more creatively (Nurdyansyah and Widodo, 2015). Thus, learning using the Pro-ting technique in blended learning assisted by Edmodo (collaboration) is more effective to apply, in addition to being able to train independent study habits, it also improves students' thinking skills. The higher the knowledge, experience, and effective learning strategies applied by lecturers and students, the more their abilities will increase.

CONCLUSION

Based on the results of the analysis and discussion, the following statements can be drawn: 1), there are differences in learning outcomes between students who applied blended learning assisted by Edmodo in collaboration with probing-prompting techniques and those who applied probing-prompting without blended learning; 2), there are differences in critical thinking skills between students who apply blended learning (Edmodo) probing-prompting collaboration and those who apply probing-prompting techniques without blended learning in introductory accounting courses. It can be concluded that the Edmodo-assisted blended learning model in collaboration with the probing-prompting technique is effective in improving learning outcomes and critical thinking skills in introductory accounting courses at Madura University. The increase obtained in addition to internal factors is also due to the advantages that exist in the BLPP. Therefore, the selection of models and approaches used is one of the determinants of achieving learning objectives. So the BLPP model is a learning model that can influence improving learning outcomes and critical thinking skills.

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