

BLENDED LEARNING STRATEGY TO IMPROVING LEARNING INDEPENDENCE AND CRITICAL THINKING SKILLS OF STUDENTS IN DIGITAL ERA

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ABSTRACT

The purpose of this study was to determine the implementation of blended learning strategies in improving learning independence and critical thinking skills of students in accounting theory courses in the second semester of the Accounting Education Study Program, Faculty of Teacher Training and Education (FKIP), Universitas Muhammadiyah Sumatera Utara (UMSU). This research is a class action research with Kemmis Taggart model approach. This research was preceded by formulating learning tools in the form of Semester Learning Plan, teaching materials and assessment instruments as an effort to improve learning independence, students' critical thinking skills and student learning outcomes. The research stages of each cycle include: planning, action implementation, observation, and reflection. The subjects of this study were all second semester students of the morning class totalling 32 people who took accounting theory courses. Data collection methods used observation to measure the level of student learning independence and tests to measure students' critical thinking skills. Data analysis used descriptive analysis.

Keywords: **Blended Learning, Critical Thinking, Learning Independence, Learning Strategy.**

INTRODUCTION

Blended learning approach is increasingly adopted in higher education institutions due to its flexibility (Sanusi, 2022). It involves face-to-face and online teaching techniques that empower lecturers or instructors to be flexible in adopting the two approaches based on students' learning needs (Majeed & Rehan Dar, 2022). The reason for using this blended learning approach is because it is considered capable of facilitating the diverse learning pace and needs of learners. Through the combination of the lecturer's role as a facilitator along with the utilisation of technology in this learning model, students can adjust their learning process to their abilities and needs. In addition, the blended learning approach also allows lecturers to be able to help students who encounter problems in learning, both individually and in groups (Ololube, 2011). In addition, the online learning system used in the blended learning model also allows students to explore more learning materials so that there are variations in learning activities. This is in line with efforts to improve the quality of learning in accordance with the demands of education in the 21st century and the industrial era 4.0, where the ultimate goal is that students have the ability and skills to think critically (critical thinking), creativity (creativity), communicate (communication), and collaborate (collaboration) (Toivola et al., 2022). Blended learning is a learning approach that

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harmoniously, structurally and systematically combines the advantages of face to face and online learning (Staker & Horn, 2012). Blended learning becomes popular along with the rapid development of ICT, which is the combination of internet network and computing capability (Internet of Think/IoT) that allows learning to be more efficient and effective in developing learning outcomes in students. It has been previously mentioned that blended learning allows students to actively engage in learning, and thus student-centred learning (SCL). Students can learn independently or interact both with lecturers and fellow students and have access to various online learning resources that can be obtained by using devices and applications that are in their hands easily. The variety of learning objects is richer, it can be in the form of electronic books or electronic articles, simulations, animations, augmented reality (AR), virtual reality (VR), learning videos or other multimedia that can be accessed online (Muhtadi, 2019). The blended learning strategy is expected to change the popular learning strategy that has been implemented by educators, which is classroom-based and teacher-centred learning that prioritises the lecture method without any variation of other methods. (Woldetsadik et al., 2022). As a result, students' critical thinking skills become less honed because they are not accustomed to thinking outside the context conveyed by the lecturer. The resulting effect is that students become passive and less independent in finding additional learning resources that can improve their understanding of the lecture material that has been explained by the lecturer. Students are more dependent on the lecturer and even make the lecturer the only source of learning that they rely on. So that during the discussion, their critical thinking skills in presenting the results of their discussion including the ability to respond to their friends' questions were very low. This arises because of the lack of student independence in finding and reading learning resources, especially in improving their critical thinking skills. (Saehu, 2017). As a student who has a high level of intelligence should have independence in learning. This ability shows that a student has a sense of responsibility for his success in learning. This cannot be separated from the achievement of maturity in students so that they realise the purpose of learning (Yang et al., 2021). Learning independence is a state and attitude that students have to carry out learning activities both independently and with the help of others based on their own desire to master a certain competency so that they can use it to solve problems they encounter in the real world (Hasanah & Rachmawati, 2024). Accounting theory courses demand a high level of understanding and learning independence through understanding accounting concepts and principles. So that it requires high learning independence and initiative from students to achieve maximum learning ability and results. The results of research from (Miranti & Pratama, 2024) state that learning independence has a significant and positive effect on learning outcomes. However, in the above phenomenon, there is still a research gap in the results of research by (Moh Khoizi Eriyanto et al., 2021) which states that learning independence has no significant effect on learning outcomes. Based on the results of observations and questions and answers made by researchers to students of the Accounting Education Study Program at FKIP UMSU in the 2023-2024 academic year who took accounting theory courses, it turns out that not all students are actively involved in expressing opinions or questions critically according to the material provided by the lecturer. Of the 32 students who attended lectures at the maximum of each meeting (from the first to the third meeting) only 5 people seemed to understand the content of the material that had

been delivered. This shows that students have not been able to learn independently and have not been able to use their critical thinking skills to respond to matters related to lecture material. One of the alternative solutions to problems that occur in learning is to use a blended learning strategy. Universitas Muhammadiyah Sumatera Utara (UMSU) has provided a learning application platform through Learning Management System (LMS) through E-Learning UMSU <https://elearning.umsu.ac.id/>. This application is one of the platforms given to lecturers and students to implement blended learning. By implementing this blended learning strategy, it is possible for lecturers to help students' difficulties in informing various supporting learning resources in accordance with lecture material, as well as creating discussion forums that are free to be responded to by students anytime and anywhere.

METHODS

This research is a classroom action research. The Classroom Action Research model adopted is the action research model of Kemmis and McTaggart. The stages of research used are in accordance with the stages of the classroom action research cycle set by Kemmis and Mc Taggart which includes the stages of planning, action, observation and reflection. This class action research is planned to be carried out in two cycles, where for each cycle it consists of four stages, namely planning, implementation, observation, and reflection. Learning activities with this blended learning strategy will continue to the next cycle if the success indicators have not been achieved. This class action research is not determined to be carried out in a certain number of cycles, but based on the results of increasing Critical Thinking and Learning Independence of students through the implementation of learning strategies. This is in line with what is expressed by Suharsimi Arikunto (2008), namely the number of research cycles in class action research depends on the achievement of benchmarks, but preferably not less than two cycles. This research is a class action research conducted on all students of Accounting Education Study Programme second semester FKIP UMSU who took Accounting Theory course. All 32 students in the class were used as research subjects. While the object of this research is the Blended Learning learning strategy to increase students' Learning Independence and Critical Thinking Ability. This research was conducted for one semester starting from the fourth meeting (4) to the fourteenth meeting (14), Pre-research data was conducted from the first meeting to the third meeting which was used to obtain current information for the implementation of traditional learning (face to face). Cycle one was carried out at the fourth meeting to the seventh meeting before the implementation of MID semester, cycle two was carried out at the ninth meeting to the fourteenth meeting before the final exam. Data collection techniques were conducted through tests and observations. This research is a qualitative descriptive research so it is necessary to test the credibility or trust test of the data from qualitative research. The technique that will be used is to use data triangulation. Data on student learning outcomes will be analysed using descriptive statistical techniques. Data on student learning outcomes will be used to evaluate the success of the implementation of the Blended Learning strategy through changes in student learning outcomes. Observation data of Learning Independence, and Critical Thinking will be analysed qualitatively.

RESULTS

Learning activities are said to be successful and of high quality if all students or at least 75% of the total students are actively involved and show high enthusiasm for learning, great enthusiasm for learning, and high self-confidence. In terms of the results of the competency formation process, it can be said to be successful if there are positive behavioural changes in all students or at least 75% in accordance with the basic competencies (Mulyasa & Aryani, 2022). So in this study, the implementation of the Blended Learning strategy is said to be successful when at least 75% of the total number of students have had Independence in Learning, Critical Thinking ability, and obtained a learning achievement of at least 75 for numerical scores, or B+ for letter grades. Based on the implementation of the Blended Learning Strategy in learning, the following results were obtained:

Results Of Blended Learning Strategy Implementation

In the implementation of the Blended Learning strategy, students were given assessments for assignments, class participation and group discussions both in the classroom and in the discussion forum in e-learning. Then the grouping of students in 2 groups was made to facilitate the grouping of students based on their completeness. The standard of completeness is set at 75

Table. 1 Student Learning Outcomes

Assessment Components	Complete		Incomplete		Number of Students
	Number of students	%	Number of students	%	
1. Assessment of test results and student activity in discussion activities in class and in discussion forums in e-learning (cycle I)	21	66%	11	34%	32
2. Assessment of test results and student activity in discussion activities in class and in discussion forums in e-learning (cycle II)	28	87,5%	4	12,5%	32

Source: (Jurnal & Akuntansi, 2018)

Based on the analysis of the data that has been presented above, it can be stated that the student learning results in cycle 1, the percentage of students who have an average assignment score and participation in the classroom and in the discussion forum in the elearning ≥ 75 is 66%. This situation increased again in the implementation of cycle 2 to 87.5%. This significant increase occurred because there was an emphasis at the beginning of the meeting (pre-research) to require students to actively participate in learning activities both face-to-face and through e-learning. And the results of the participation will always be announced at the end of the lesson, so that students try and even compete to actively

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participate every time a discussion session activity is carried out. Meanwhile, the number of students who did not complete both cycles I and II really never contributed directly in class or during discussion forums through e-learning. This is because students have not understood what the ultimate goal of learning accounting theory is. Based on the learning results obtained by students above, it can be concluded that blended learning strategies are very appropriate to be used to teach students conceptual materials such as accounting theory.

Learning Independence

There are 5 assessment indicators used to measure the aspect of student Learning Independence. This indicator is then used as a guideline to assess the number of students who have Learning Independence between before the research, cycle 1 research and cycle 2 research.

Table 2. Results Of Student Learning Independence Observation

Indicators of Learning Independence	Pre-research		Cycle-I		Cycle-II	
	Selfsuffic ie nt	Not Indepen de nt	Selfsuffic ie nt	Not Indepen de nt	Selfsuffic ie nt	Not Indepen de nt
1. Able to formulate the goal of learning	5	27	18	14	26	6
2. Able to take the initiative to diagnose their learning needs	11	20	18	14	26	6
3. Able to identify the source of learning	14	18	22	10	28	4
4. Able to determine and implement the right learning strategy according to their needs	14	18	22	10	28	4
5. Able to evaluate the level of understanding/learning outcomes	15	17	24	8	30	2

Source: (Sari, 2013)

Based on the analysis of the data presented above, it was found that the Learning Independence before the study was 15.6%, while after cycle 1 the implementation of the

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Blended Learning learning strategy was 56.25% and after the 2nd cycle there was an increase of 81.25%. The results of student learning independence after cycle 2 based on the indicators used can be described as follows: 81.25% of students were able to take the initiative to diagnose their learning needs, 81.25% of students were able to formulate their learning objectives, 87.5% of students were able to identify their learning resources, 87.5% of students were able to choose and implement learning strategies that were suitable for them, and 93.75% of students were able to evaluate their learning outcomes. So it can be stated that there is an increase in students' ability to learn independently between before the implementation of the Blended Learning Strategy and after the implementation of the Blended Learning Strategy.

Students' Critical Thinking Skills

There are 5 assessment indicators used to measure students' Critical Thinking aspects. The indicator is then used as a guideline to assess the number of students who have Critical Thinking skills between before the research, cycle 1 research and cycle 2 research.

Table 3. Students' Critical Thinking Skills

Critical Thinking Indicators	Pre-research		Cycle-I		Cycle-II	
	Selfsuffie nt	Not Indepen de nt	Selfsuffic ie nt	Not Indepen de nt	Selfsuffic ie nt	Not Indepen de nt
1. Analytical skills	5	27	16	16	22	10
2. Ability to synthesize	11	20	18	14	26	6
3. Problem-solving capabilities	14	18	22	10	28	4
4. Ability to conclude	14	18	22	10	28	4
5. Ability to evaluate	10	22	20	12	22	10

Source: Angelo (tolinggo:2013)

Based on the analysis of the data that has been presented above, it was found that the level of Critical Thinking of students before the study was 33.75%, while after cycle 2 the implementation of the Blended Learning Strategy was 78.75%. When described based on the criteria, they can be described as follows: students' ability to analyze is 68.75%, students' ability to synthesize is 81.25%, students' ability to solve problems is 81.25% and students' ability to evaluate is 68.75%. So it can be stated that there is an increase in students' ability to think critically between before the implementation of the Blended Learning Strategy and after the implementation of the Blended Learning Strategy.

DISCUSSION

The Blended Learning learning strategy has been proven to be successful in increasing Learning Independence, Critical Thinking, and learning achievement from students towards accounting theory lectures. This is based on the occurrence of: (1) the increase in students' ability to learn independently before the implementation of the Blended Learning Strategy is 15.6%, and after the last cycle of the implementation of the Blended Learning Strategy is 56.25% (2) the increase in students' ability to think critically before the implementation of the Blended Learning Strategy is 33.75%, and after the last cycle of the implementation of the Blended Learning Strategy is 78.75% (3) the increase in student learning achievement where there were 92.9% of students who got a greater score equal to 75 for the assignment and participation components, and 87.5% of students who got a greater score equal to 75.

CONCLUSION

Based on the results of the research and discussion that has been described, it can be concluded that the implementation of the Blended Learning Strategy can increase students' Learning Independence and Critical Thinking skills, as well as be able to improve student Learning Achievement. Beyond the success of the implementation of the Blended Learning Strategy above, we need to realize that this strategy has begun to be widely applied since the outbreak of the COVID-19 pandemic in 2019 in Indonesia, so that various forms of online learning activities are widely used by educators and students. However, after the postpandemic, this blended learning activity has receded again and has been implemented by educators. This is due to many factors, including the readiness of learning technology support in the form of applications that can be developed by educational institutions to facilitate this blended learning activity to be more directed and effective. Without adequate support, blended learning strategies will be impossible to successfully implement. In addition, educators must also pay more attention to the level of ability of their students in understanding the content of learning materials, so that when obstacles are found in students, they must immediately find the right strategy that is easy to use by all students and can be accessed anywhere and anytime. The level of readiness of educators in assessing each student activity, both directly and indirectly, is one of the important points in measuring the achievement of learning objectives.

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