Learning with The Jigsaw Type Cooperative Method to Improve Student Banking Law and Guarantee Learning Achievement

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Abstract.

The cooperative learning model is one of the current learning models that is recommended for use in increasing student enthusiasm for learning. The reason for choosing cooperative learning is to improve learning achievement and to improve social relations skills, foster tolerance towards other people's opinions and be able to think creatively in solving problems and integrating knowledge with skill. This research is classroom action research with the aim to find out whether the Jigsaw cooperative learning model can improve learning achievement for students both individually and in groups. In addition, it also describes the learning activities of students and lecturers during the learning process and student responses to the jigsaw cooperative method. The instruments are tests, observation sheets and questionnaires. The results in cycle 1 showed that only 37,5% of the 40 students scored above 70 on student achievement. In cycle 2 there was an increase in learning achievement, namely 90% of students who scored above 70. Based on these data, the Jigsaw cooperative learning model can improve student achievement.

Keyword: *Cooperative Learning Model; Jigsaw; Activity Model and Student Achievement.*

I. INTRODUCTION

The teaching and learning process is a daily activity carried out by lecturers. Lecturers will provide each material to students to understand and master. In the subject matter of banking law and guarantees, there are many terms that are difficult for students to understand. In addition, learning is still carried out traditionally by dominating lecturers in providing material through lecture methods and methods that are less varied. As a result, the learning outcomes obtained by students are unsatisfactory. So that the lecturer creates fun learning activities so that the material presented can be understood and can improve student learning outcomes.Individual learning practices have been implemented for decades at all levels of education, from elementary to college classes. Intellectual ability is considered a feature of the individual, according to cognitive and behaviorist theorists. However, in recent years greater emphasis has been placed on individual social development. One of the fun learning activities is to use cooperative learning methods which aim to instill cooperative skills among students with group discussions so that students are able to think critically and shape the character of students.Cooperative learning is a learning model that directs students to move and work together in teams and have rules. Students are directed to discuss learning material together with teams with different learning abilities, races, and genders.Furthermore, face-to-face interaction between students must take place, involving verbal such as speaking, challenging each other's viewpoints, and focusing on the problem-solving process of the answers, individual accountability must exist, with each group member responsible for learning all the material needed.

Finally, structure is built into the development of interpersonal and small group skills.The cooperative model is expected to provide solutions in improving communication skills problems through the use of the Jigsaw type cooperative learning model, (Maielfi & Wahyuni, 2020). This model can motivate students to play a more active role in the learning process and carry out high obligations and have confidence in their ability to learn. This type of Jigsaw cooperative model encourages and facilitates students to convey ideas, have tolerance, and be responsible in groups.Seeing these conditions, it is necessary to have alternative learning that is oriented to how students learn to find information themselves, connect topics that have been studied in everyday life, and can interact in multi-way with lecturers and fellow students in a pleasant and friendly atmosphere that has been suggested by experts. Education is Jigsaw type cooperative learning which means the exchange of expert teams. Departing from the reality and ideals that have been stated previously,

the authors are interested in conducting a study that aims to find out whether there is indeed an influence of the Jigsaw cooperative learning method on learning achievement in students majoring in management, the Faculty of Economics and Business, Labuhanbatu University.

Based on the background of the problem, the author formulates the problem of how jigsaw cooperative learning can improve student learning achievement in banking and guarantee law courses and achieve results according to predetermined. To improve the teaching and learning process on an ongoing basis as well as develop the skills of lecturers to deal with actual learning problems in their classes and can encourage aspirations for lecturers to carry out this class research (PTK).

As described above, for solving the problem as follows:

1. Referring to the theory that is the reference in this research can be used as a reference in the implementation of lectures, so that it is a source of problem solving that can be accounted for.
2. Develop learning as well as test the effectiveness of developing a jigsaw type of learning method in banking law and guarantee courses.

II. METHODS

This research is class action research (PTK) while the issues raised are real events experienced by lecturers in carrying out teaching and learning activities taking place at students majoring in Management at the Faculty of Economics and Business, Labuhanbatu University. There are several components to developing classroom action research including: planning, action, observation and reflection.The implementation of the action was carried out in 2 cycles with each cycle consisting of 2 meetings. In this implementation stage, the lecturer will carry out learning using tha Jigsaw cooperative method. In this stage test are also carried out at each meeting to determine the level of success of students. The observation stage was carried out by colleagues. Observations were carried out intensively at each meeting using an observation instrument. In addition, observations were also made by students by answering questionnaires.

The reflection stage is carried out after the action and observation stages are carried out. This reflection stage is the evaluation stage of the activities carried out, especially the weaknesses or deficiencies in the first cycle. The evaluation results are then used as a basis for carrying out the learning process in the next cycle. This aims to optimize the quality of learning.The research instruments were observation sheets, questionnaires and tests so that the data collected to determine learning activities was in the form of observation sheets, student responses could use questionnaires and the success of students could use tests. The indicator of success in this action is that at least 70% of students have good activities in learning banking and guarantee law courses and student learning outcomes have a minimum absorption capacity of at least 85%.

The subjects of class action research were students majoring in management at the Faculty of Economics and Business, Labuhanbtu University, semester V of the 2021 academic year.

This research involves the following research objects:

1. Learning banking law and guarantees
2. The results of learning activities in the management of the Faculty of Economics and Business, Labuhanbatu University.

   Data collection techniques in classroom action research (PTK) consist of tests and obsevations.

1. The test is used to obtain data about learning outcomes using Jigsaw cooperative learning method carried out by students.
2. Obsevation is used as a data collection technique about the activity of students and lectures during teaching and learning activities:
   a. Test skills and abilities in providing answers to questions given by other groups.
   b. Observation is observing the activities of students and lecturers during learning activities.

The instruments used in this classroom action research are as follows:

1. Semester Implementation Plan (RPS)

   The learning implementation plan is a guide for lecturers in carrying out teaching and learning activities in which there are basic competencies, indicators, time allocation, and learning activities,

learning materials, learning methods, learning activities, learning resources, teaching media and assessment of learning resources.

2. Skills test assessment sheet
   Observation sheets to assess student exams whose assessments are adjusted to learning activities
3. Student activity observation sheet
   Student activity sheets in class to find out the percentage of student activity in participating in learning is student enthusiasm during learning, student activity in asking questions and expressing their opinions.
4. Questioonaire

The questionnaire given to students was in the form of a questionnaire which involved three aspects, namely cognitive, psychomotor and affective aspects. The cognitive aspect is that which concerns students' knowledge or understanding of the subject matter. The psychomotor aspect is the ability to move students towards teaching material. The effecttive aspect is the attitude of students during the lesson

III. RESULT AND DISCUSSION

Results

When learning activities using the jigsaw cooperative method were carried out, there were 2 observations made, namely observing learning management and observing students' cooperative skills. The results of observations about the management of learning can be seen in table 1 below

Table 1. The results of observations of learning management with cooperative learning models

Observed Aspect	Siklus 1		Siklus 2	
	Evaluation	Category	Evaluation	Category
A. Introduction				
1. Delivering current lessons with students' prior knowledge	3	Good	4	Very Good
2. Provide motivation to students	2	Not Good	4	Very Good
3. Convey indicators that must be achieved	3	Good	4	Very Good
B. Core Activities				
1. Present information	3	Good	3	Good
2. Organizing students into study groups	3	Good	4	Very Good
3. Guiding work and study groups	2	Not Good	4	Very Good
4. Evaluation	2	Not Good	3	Good
5. Give awards	3	Good	3	Good
C. Closing				
1. Conclude material	2	Not Good	3	Good
2. Give posttest	3	Good	3	Good
D. Time management	2	Not Good	3	Good
E. Class situation				
1. Student centered	2	Not Good	3	Good
2. Student enthusiasm	3	Good	3	Good
3. Lecturer enthusiasm	2	Not Good	3	Good

Data from observations of students' cooperative skilla can be seen in table 2 below.

Table 2. Observation Reslts of Student Cooperative Skills Activities

No	Observed cooperative skills	Cycle 1		Cycle 2	
		Total	Persentage (%)	Total	Persentage (%)
1	Respect other people's opinions	20	50	32	80
2	Take filiran and share tasks	15	37,5	35	87,5
3	Invite others to speak	20	50	30	75
4	Active listening	25	62,5	30	75
5	Ask	18	45	35	62,5
6	Not on duty	25	62,5	10	25
7	Check accuracy	17	42,5	25	62,5

Data completeness class learning outcomes (evaluation) can be seen in table 3 below

Table 3. Evaluation results of cycle 1

	Cycle 1	Cycle 2
Characteristics	Grade	Grade
N	40	40
Σ Complete student (≥ 70)	15	36
Σ Incomplete student (≤ 70)	25	4
Class completeness (%)	37,5%	90%

Of the 40 students who scored above or equal to 70 in cycle 1, there were 15 students (37,5%0. While those below 70 were 25 students (62,5%). So students who experience learning mastery are only 37,5%. In the second cycle, students experienced an increase in learning outcomes, namely students who scored above 70, there were 36 students or 90%.

Student response in cooperative learning process

At the end of the learning process with the Jigsaw cooperative model, a questionnaire was filled out regarding students' responses to the learning process applied. In the following, data on the percentage of student responses is presented in table 4 regarding the student response questionnaire.

Table 4 . Student Response Questionnaire

No	Argument	In one's element	Like	Not happy	disliked
1	How did you feel while attending banking law and guarantee courses?	75%	10%	7,5%	7,5%
2	How do you feel about;				
	a. The teaching material	50%	20%	15%	10%
	b. The written material	12,5%	47,5%	25%	15%
	c. Evaluation	25%	30%	25%	20%
	d. Learning atmosphere	65%	22,5%	10%	2,5%
	e. The way of lecturer teaches	64,5%	40%	7,5%	10%
	f. Evaluation	17,5%	37,5%	22,5%	22,5%
	g. How to assign tasks	72,5%	15%	12,5%	-
3	Are you interested in taking part in the next lesson?	90%	7,5%	2,5%	-

Based on the research results in cycles 1 and 2, it is known that there are differences in the activities of lecturers in banking law and guarantees using a jigsaw cooperative model. The activities observed in Jigsaw cooperative learning are:

1. Preliminary activities which include presenting current lessons with students' prior knowledge, providing motivation to students, conveying indicators that must be achieved
2. Core activities which include presenting information, organizing students into study groups, guiding group work and study, evaluating and giving awards.
3. Closing activities include concluding the material, giving a post-test
4. Time management, and
5. Class atmosphere which includes student-centered, student enthusiasm and lecturer enthusiasm

This activity is observed when the learning process takes place. Observations were made both in cycle 1 and cycle 2. Some results showed differences. In cycle 1, the lecturer lacks motivation in activities, guides work and study groups, lacks in evaluation, time management, that is, a lot of time is wasted where lecturers and students cannot use time properly and efficiently. Lecturers are also lacking in concluding material activities. In the closing activity, the lecturer concludes the material without giving students the opportunity to play an active role in concluding the material. In the learning atmosphere in the classroom, the lecturer looked unenthusiastic. This can be seen from the reluctance of lecturer to guide students in work and study. Activities that are not carried out by lecturers during teaching and learning activities are then reflected to be used as a reference/base in the following cycle. And there are differences in activity where the lecturer becomes more enthusiastic in teaching and learning activities in the second cycle. This can be observed from the activities of lecturers.

In evaluating activities and concluding the lecturer's material, they still get less marks. Other activities the lecturer has received good or very good grades. This is in line with the opinion (Susanti, 2015) namely by applying the cooperative learning model the lecturer can motivate all students and foster an attitude of active learning in students. Students must be active during the teaching and learning process,

namely by reading, writing, listening to lecturer explanations, asking lecturers about subject matter that they have not understood, answering questions from lecturers, arguing or discussing with friends during the learning process (lecturer enthusiasm).This means that the Jigsaw technique cooperative learning method is the most widely used method in classroom learning (Evcim & İpek, 2013; Haliza, 2016; Iriani & Arthur, 2016; Suwarno, 2018). This statement is quite reasonable because the jigsaw technique cooperative learning method has several advantages compared to other cooperative learning technique, the advantage is that students read all the reading material that is part of it, which can make them find, record, and understand the important things from what they read and then combine them based on their level of understanding so that they are easier to understand.

This method also has weaknesses. Based on the findings, it was found that the weaknesses of the cooperative learning model of the jigsaw technique are as follows:

1. There is high student mobility which results in insufficient time allocation available for the implementation of all learning activities, for example the final activity is in the form of a quiz to evaluate the achievement of student learning outcomes. To overcome this problem, lecturers should really manage time affectively and efficiently by strictly controlling each stage of learning. This is in accordance with research (Suwarno, 2018) which states that lecturers and students require a long learning time. In this case what the lecturer has to do is: (a) start on time; (b) give clear and detailed instructions; (c) provide information in a timely manner; (d) provide material earlier; € make small group reports, (f) trying to make the discussion run smoothly, (g) having the right volunteers; (h) being alert to sluggish groups; (i) speeding up the pace of each activity from time to time, and (j) getting class attention fast and responsive.
2. In applying the jigsaw cooperative learning method, lecturers with more knowledge about this method are needed. This ability is needed before and during the implementation of the teaching and learning process.
3. The large number of students per class (on average more than 40 people) is an obstacle in the application of the jigsaw cooperative learning method. This condition is related to the distribution of students into groups, both the original group and the expert group.
4. The condition of students who are passive, this is in accordance with the opinion that is in accordance with the opinion (Syarifuddin, 2011) states that there are several things that must be considered in the jigsaw type cooperative learning model, namely, elements of the learning model, principles of jigsaw type cooperative learning, characteristics and steps, steps in the implementation of the jigsaw cooperative model.

Student activities in Jigsaw Type Cooperative Learning Model

Based on the results of research in cycle 1 and 2, student cooperative activities that can be observed during the activity are respecting the opinions of others, taking turns and sharing assignments, inviting others to talk, listening actively, asking questions, not being on assignment, and checking for accuracy, task. In cycle 1 it is known that students have not fully implemented cooperative learning activities.This can be seen from the activity of respecting the opinions of others. Only 50% of students can respect the opinion. When they argue, the opinions expressed do not invite other friends so contribute their thoughts. Students only argue according to their thinking power without anything that can tickle other students to express their opinions. This can be seen from the activity of inviting other people to speak only 50% and the activity of asking 45%.In general, students are busy with themselves, especially when they are in a group of experts. Students do not do assignments according to their competence. Ther are some students who talk to themselves, do other assignments, and other activities that do not support teaching and learning activities. This can be seen from the activity not being in the task. As many as 62,5% of students are not on assignment. Students are also not careful in doing assignment. Students feel reluctant to check the assignments that have been given by the lecturer.

Only 42,5% of students check the accuracy of assignments when given assignments by lecturer. Activities that do not support cooperative learning activities are then used as a basis for improvement in the nest cycle.In the implementation of cycle 2, there was an increase in cooperative activities carried out by

students, namely 80% of students were able to respect their friends when they expressed their opinion. This is indicated by 75% of students being able to listen actively and being able to invite other friends to speak, 62,5% of students also have the ability to ask questions and check assignments that have been given by lecturers. In cooperative learning activities, students are able to work according to the assignment given. This activity is observable in not in task. As many as 25% of students are still busy with themselves.

The results of the research in cycle 2 are in according with the opinion (Abdullah, 2017) by applying the jigsaw type cooperative learning model the learning process is very good, student responses in ongoing learning are classified as very good categories and the learning outcomes achieved by students are increased and are classified as good while in research (Susanti, 2015) can improve individual social skills and increase learning motivation.Based on tables 1 and 4 it can be seen how the process of teaching and learning activities that occur in class. By applying the cooperative learning model, students will have a more respectful attitude towards other opinions, be able to share tasks according to their abilities. With cooperative learning, lecturers can motivate stidents to speak. With cooperative groups students are motivated to talk with fellow friends.In cycle 2 all activities in cooperative learning have increased, although not 100%. There fore this research is considered to end in cycle 2 and does not need to be continued for the next cycle. The results show that the jigsaw type cooperative learning method has a positive influence on student activity during the learning process. This is supported by findings (Anggis, 2016) which concluded that the jigsaw cooperative method can improve collaborative skills and excellent cognitive learning outcomes.

Cooperative Learning Model on Student Learning Outcomes

From the results of the study it can be seen that the learning outcomes of students in cycle 1 who experienced mastery in learning were only 37,5% with a minimum standard of completeness of 70. There were several factors that caused students not to experience learning completeness. (a) students are not used to working in study groups. Students still like to work individually. Students prefer to talk with friends or do other assignments that are not in accordance with learning activities, and students are not used to checking the accuracy of their work.In cycle 2, student learning outcomes have increased a lot. As many as 90% of students have completed studying banking law and guarantess. This is because students are getting used to working in groups, so they work according to the assignments given. Students also begin to realize that accuracy is very necessary in a job.The results of this study indicate that the jigsaw type cooperative learning method has a positive effect on learning outcomes (cognitive aspects). This can be explained that the activities in the jigsaw type of cooperative learning are different from the group discussion method. It can be explained that in the jigsaw type cooperative learning method, students work together to achieve the same goals. Each group member is required to be responsible for their learning outcomes, because group success is motivated to learn, encourage and help each other among group members to learn optimally. In the stages of the jigsaw coopeartive learning method, students are given the opportunity to learn between students through peer tutoring activities.

Student Responses to the Jigsaw Cooperative Learning Model

Student responses by applying the jigsaw cooperative learning model found that as many as 75% of students answered that they were very happy and 10% answered that they were happy to take part in banking and guarantee law courses, while the others answered that they were not happy in attending banking and guarantee law lectures as much as 7,5% and as much as 7,5% answered that they were not happy with attending lectures. There were 50% of students who answered that they were very happy with the teaching material on banking law and guarantees, 20% answered that they were happy with the teaching material and the remaining 15% and 10% answered that they were not happy and not happy with the teaching material. Regarding the written material, namely teaching material in the form of hand outs or student activity sheets, 12,5% answered once, while 47,5% answered they were happy and as many as 25% and 15% of students answered that they were not happy and dissatisfied with the written material. At the end of the lesson, the lecturer will evaluate the learning outcomes. The evaluation given is in the form of oral and written tests. From the questionnare distributed to students, it was found that 25% of students were very happy with the evaluation system carried out by the lecturers, while 30% of students answered they were happy and as many as 25% and 20% answered they were not happy and not happy with the evaluation system.By applying the

jigsaw cooperative learning model, the class atmosphere becomes more fun and exciting. This can be seen from the results of the student questionnaire who answered that they felt very happy with the class atmosphere as much as 65%, 22.5% of students answered they were happy with the class atmosphere while the rest answered that they were not happy as much as 10% and answered they were not happy as much as 2,5%.

In this learning model the way of teaching is maximized. This can be seen from the student questionnaire which said as much as 42,5% said they were very happy and as much as 40% answered they were happy with the lecturer's teaching method and the remaining 7,5% were not happy and 10% students answered they were not happy with the lecturer's teaching method.Assessment in this learning does not only emphasize cognitive aspects but also emphasizes other aspects such as psychomotor aspects and affective aspects. From the results of the questionnaire, it was found that 17,5% of students were very happy with the method of assessment used by the lecturers. Meanwhile, 37,5% of students answered that they were happy with the assessment system, while 22,5% of students answered that they were unhappy and dissatisfied with the assessment system used by lecturers.The method of giving assignments carried out by lecturers is not only group assignments but also individual assignments. From the results of the questionnaire, it can be seen that as many as 62,5% of students feel very happy with the assignments given by the lecturers. As many as 15% of students answered they were happy with the system and as many as 12,5% of students answered they were not happy and the rest answered they were not happy.The final questionnaire question is whether you are interested in taking part in the next lesson. From the results of the questionnaire it can be seen that as many as 90% of students feel very happy to take part in the next learning process and as many as 7,5% of students answer happy and as much as 2,5% of students answer that they are not happy and not happy to take part in the next learning process.

IV. CONCLUSION

Jigsaw type cooperative learning is learning model using groups/teams consisting of four, six and even eight people who have different characters. And the scoring system is carried out on groups and each group will receive an award, if the group can show the expected achievements. The application of the Jigsaw cooperative learning model can improve student achievement.

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