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COOPERATIVE LEARNING TYPE TEAMS GAMES TOURNAMENT ON RESPIRATORY SYSTEM LESSON TO INCREASE THE STUDENTS LEARNING ACTIVENESS

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Abstract. This study aimed to determine implementation of cooperative learning of the Teams Games Tournament type on respiratory system lesson to the students learning activeness of class XI MIPA 2 SMA Negeri 1 Kuta Utara. The type of this research was classroom action research. The dependent research variable was learning activeness using an observation sheet in the form of a questionnaire. The data were analysed using quantitative descriptive data analysis with proportions. The results of this study indicated that in the implementation of the first cycle, the average achievement of student activeness was 63.48%. During the implementation of cycle II, the average student activeness achievement increased by 19.41% from cycle I to 82.89%. In cycle II, 38 students got very active and 7 students got active. Thus, it could be interpreted that applying the cooperative learning model of the Teams Games Tournament (TGT) type could increase student learning activeness in class XI MIPA 2 SMA Negeri 1 Kuta Utara especially on respiratory system lesson.

INTRODUCTION

Humans are one of the living creatures, besides animals and plants, that undergo the process of growth and development. Human dynamically will continue to develop towards the potential it has. This potential can be used as a long-term investment for humans. One form of investment that can determine the survival of human life is education. Humans optimise their lives to gain knowledge through education. Education is a tool that plays a critical role in improving the quality of student learning (Widana, 2022). By recognising this issue, the government has demonstrated its commitment to overcoming education in order to develop existing learning in Indonesia for future educational advancement. Through education, a nation can produce quality human resources (Sumandya et al., 2022).

Education in the 21st century is identical with the technological transition that occurs every time quickly. The emergence of various innovations that make teachers and students have to be adaptive in the learning process. In the 21st century, not only focus on knowledge, but

skills also play a role in learning (Mardhiyah, Aldriani, Chitta, Zulfikar, 2021). The school as an educational organiser has a function of skills development which means that the school always provides space for the development of skills in accordance with the talents and potential of each student by using digital technologies creatively and innovatively (Majir, 2020). The skills expected to be mastered by students in the 21st century are the 4C skills (Communication, Collaboration, Critical Thinking and Creative Thinking) because these skills will be very useful for students to succeed in their work and future life. Participants are trained to have the ability to think critically, solve problems peacefully, be able to communicate, absorb, and filter information well, as well as the capacity to collaborate (collectively) in teams. Therefore, in an effort to improve the quality of education, the quality of teachers in the learning process is a component that has a very important role. Teacher activities affect the success of educational activities. The teacher must create a good learning process according to educational goals and provide encouragement for students' learning potential (Devi et al., 2022). Teachers should also be able to guide and facilitate students so that they can develop their potential through learning activities.

Teaching and learning activities are an interaction between teachers and students in the learning process. Learning is the process of changing a person's behaviour as a result of training and experience as a result of human-to-human interaction (Nofriansyah et al., 2020). The success of a learning activeness is influenced by many aspects, including the position of teachers and students and the implementation of educational strategies and procedures (Purba et al., 2022). The teacher must think about things that are relevant to the problem of children's expertise in carrying out learning activities as well as interesting educational activities so that children are motivated to learn. Without strong motivation from students, learning objectives will be difficult to achieve.

Learning can be successful and of good quality if most students participate actively in the learning process, besides showing high learning enthusiasm, great enthusiasm for learning, and self-confidence (Thalita et al., 2019). Learning cannot be forced on others or delegated to others. Learning only occurs when students actively experience it themselves or based on their own initiative (Octavia, 2020). Based on this, the teacher's efforts to develop student learning activeness are critical, as student activeness determines the success of the learning. The more learning activities students participate in, the higher the chances of success in teaching (Dolhalewan et al., 2023).

However, the reality that occurs in the classroom is that learning does not always take place smoothly. According to observations in class XI MIPA 2 students at SMA Negeri 1 Kuta Utara, students' learning activity in biology was still low because they did not actively work on their groups; only one or two students were working on the project, some students were still unable to express their own opinions when the teacher explained, students did not have high curiosities (they were relatively uninterested in new things). This was demonstrated by the fact that 71.1% of students were less active when they were learning biology lesson.

Reviewing the problems above, it is important for a teacher to use an interesting learning model so that students tend to be more active in the classroom during the learning process; this can have a positive impact on student learning outcomes. Cooperative learning model with Teams Games Tournament (TGT) type is one of the learning models that can be used to improve student learning outcomes (Yuliawati, 2021). The Teams Games Tournament type of cooperative learning model is a type of cooperative learning model that is easy to

apply, involves the activities of all students without any status differences, involves the role of students as peer tutors, and contains elements of play and reinforcement (Pitriani et al., 2022). The Teams Games Tournament (TGT) learning model has competition so that students will be motivated to help each other win the tournament. As a result, the researcher is eager to conduct a classroom action research to cope with it (Adnyana, 2020).

METHOD

The method of this research is classroom action research. Classroom action research model was developed by Kemmis and Mc Taggart with four stages, namely planning, acting, observing, and reflecting (Wiriaatmadja & Rochiati, 2012). The research was planned in two cycles, with cycles 1 and 2 consisting of two meetings each. The research location was at SMA Negeri 1 Kuta Utara, and the research subjects were all students of class XI MIPA 2, totalling 45 people, with 18 boys and 27 girls. The research was carried out for 5 days, specifically the pre-action was carried out on Friday, November 18, 2022; cycle I, which was held on Tuesday, January 17, 2023, and Tuesday, January 24, 2023; and cycle II, which was held on Tuesday, January 31, 2023, and Friday, February 3, 2023. The research instruments used were lesson plans and observation sheets. The student learning activeness observation sheet is presented in Table 1 as follows.

Table 1. Student Learning Activeness Observation Sheet

Variable	Indicator	Score			
		1	2	3	4
Visual Activity	1. Students notice explanation material delivered by the teacher.				
	2. Students read sources in biology.				
Oral Activity	3. Active questioning by students during discussion				
	4. Students put forward opinions during their learning of biology.				
	5. Students connect the answer to the question with their daily lives.				
Listen Activity	6. Students pay attention when the teacher explains learning.				
	7. Students pay attention to the explanation.				
Write Activity	*8.* Students record things that have been conveyed by the teacher based on understanding themselves alone.				
	9. Students summarise the material.				
	10. Students finish assignments given by the teacher.				
Motor Activity	11. Students move quickly when the teacher asks them to sit with the group.				
	12. Students move quickly when the teacher gives game instructions.				
Mental Activity	13. Students analyse something.				
Emotional Activity	14. Biology students enthusiastically follow the learning process.				
	15. Students believe that self-expression conveys opinion.				

Adapted from Khusna (2019); Rizka (2018)

Data collection techniques in the form of observation and interviews. This research procedure uses quantitative data analysis. To see the level of student learning activeness, the following is a grouping table of student learning activeness.

Table 2. Grouping Percentage Table of Student Learning Activeness

No.	Category	Percentage
1	Very Active	$80 < x \leq 100$
2	Active	$60 < x \leq 80$
3	Moderately Active	$40 < x \leq 60$
4	Less Active	$20 < x \leq 40$
5	Very Inactive	$0 \leq x \leq 20$

Adapted from Sugiyono (2016)

RESULTS AND DISCUSSION

The pre-action meeting was held on Friday, November 18, 2022. At this session, learning activities were carried out using a conventional learning model. Conventionally, the teacher teaches by providing an explanation of the material to students with blackboard learning media. After that, occasionally the teacher gives questions and answers to students, but when asked, students are reluctant to raise their hands or take the initiative to answer questions unless appointed directly by the teacher to do so. This learning activeness begins with the teacher greeting, then taking student attendance, conveying learning objectives and indicators, and starting the learning process by presenting subject matter. Students are given the opportunity to ask questions about material that they do not understand. The teacher gives exercises to students in the form of worksheets, which are completed in group discussions, and then the results are discussed together. At the end of the lesson, the teacher leads the students in concluding the lesson and gives evaluation questions or homework.

In observing this meeting, many students pay less attention to the teacher's explanation. There are still many students who are embarrassed to express their opinions or ask and answer questions given by the teacher. In group discussions, it can be seen that some students are passive, and at the end of the lesson, only a few students can conclude the learning outcomes. Based on the results of observations in class XI MIPA 2 SMA Negeri 1 Kuta Utara, 13 people (28.9%) are in the moderately active category, and 32 people (71.1%) are in the less active category. These data show that the majority of students fall into the less active category. Therefore, it is necessary to take action to increase the learning activeness of class XI MIPA 2, SMA Negeri 1 Kuta Utara using the cooperative learning model of the Teams Games Tournament (TGT) type. The results of the pre-action observations are also used as material for discussion between the researcher and the teacher in an effort to increase student learning activeness.

In Cycle I and Cycle II from the stages that have been carried out, the average achievement results of student learning activeness for each indicator are presented in the following graph.

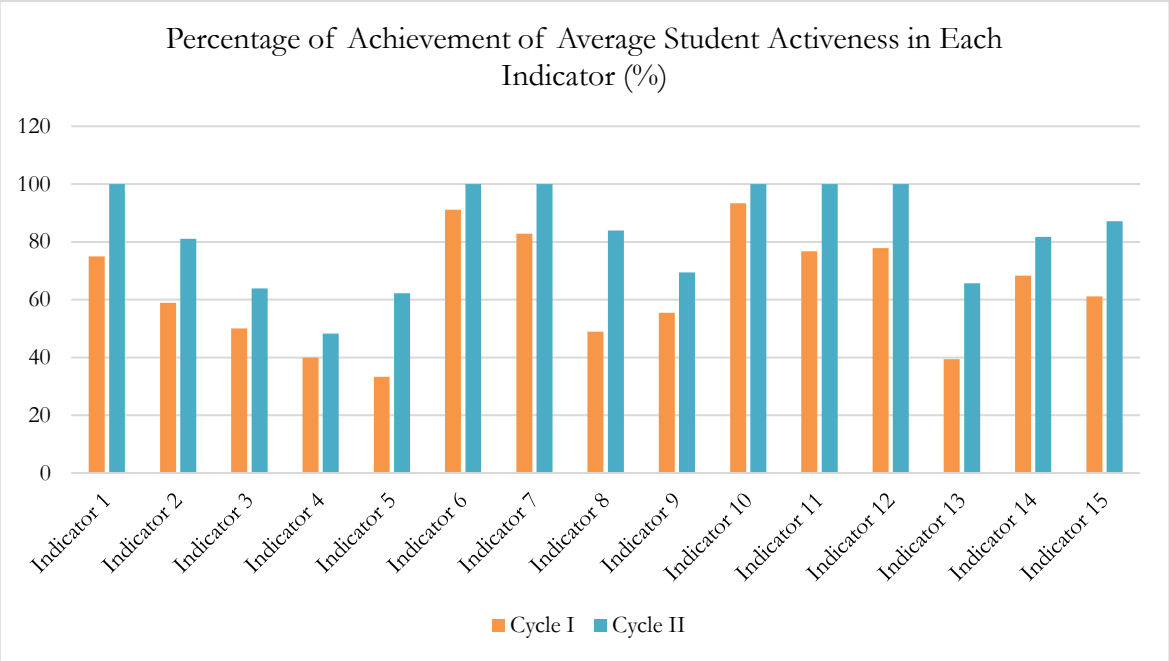

Figure 1. Average Achievement of Activeness Study Student Each Indicator

On the basis of the graph in Figure 1, you can compare the average student's level of learning engagement for each indicator in Cycle I and Cycle II. All indicators have improved since cycle I while cycle II is being implemented. Indicator 8 contains the most noticeable enhancement chart, where students report teacher messages that are completely based on their perceptions of themselves. Realising that there will be games and competitions after, the students start taking notes on the information the teacher gave to them. To see which group can achieve the highest score, they compete with the other groups. This suggests that the learner is self-aware while learning, which is important for social emotional learning. The application of learning models for cooperative type teams in games and tournaments can be explained using implementation action in cycles I and II as follows.

In class presentation, researchers use GREDU Belajar media and a whiteboard to convey aterial learning. Students who participate in the activeness; students who pay attention and listen to explanation material presented by the teacher; students who read sources in biology; students who record things conveyed by the teacher based solely on their understanding; students who actively ask and believe themselves when conveying something are indicators of this study activeness's learning. In cycle I, several students already try to answer questions and suggest their opinions when the teacher does ask for answers and discussion. However, there are also students who are still not paying attention to teachers; they still do such other activities as play, write, and sleep during class time. This is because the teacher's presentation of the material does not attract the students' interest in learning biology, so they are uninterested in studying it. As a result, in cycle II, the researchers pay more attention to and motivate students in a row to study biology. Then there are students who have academic ability but are not engaged in learning, such as providing an answer or an opinion. This is due to students' shyness and lack of experience expressing their opinions or requesting something during a learning session. So, in cycle II, the researchers direct students to express their opinions, answer questions, and ask questions. This is correlated with the role of the teacher as a motivator and facilitator in learning cooperatives, so that students can study in

an environment that is fun, happy, full of spirit, free of anxiety, and open to expressing one's opinions (Safitri, 2019). The documentation in this stage is show in Image 1.

Image 1. Class Presentation

In the process of Study in Team, researchers form a heterogeneous small group, which is one of the characteristics of cooperative learning (Toifur & Kurniawan, 2022). An indicator of student activeness learning is when students move quickly when the teacher asks them to sit with the group, students finish assignments given by the teacher, students connect the answer to the question with their daily lives, and students engage in active questioning during discussion. Every group is also required to learn the worksheet given by the researchers and discuss it to prepare for games and tournaments. In cycle 1, not every student's participation in the group aids their learning. This is because students who have high levels of academic dominance work on worksheet group, whereas shy students who have low levels of academic dominance and are shy only shut up and do not participate. As a result, in cycle II, the teacher establishes rules for students to study in groups. To achieve good results, each member and group leader in one group must cooperate and learn together. Some members of the worksheet group team are sluggish in their work. This has caused the researcher's timetable to be flexible due to time constraints. As a result, in cycle II, the teacher gives a gift of score addition to the group that completes the worksheet in details at the appropriate time. There is no time to waste right now to study in groups. Students change in cycle II; there is more collaboration in every team, and students from different academic categories no longer dominate. They share assignments and assist friends when they encounter difficulties while working on worksheet. The documentation in this stage is shown in Image 2.

Image 2. Study in Team

In the Games phase, the researchers have prepared a game involving student teams. Teachers also provide rules for games that take place conducively. In cycle I, several students appear uninterested in following game matter, which is caused by students' lack of readiness to learn. The student now understands the game system as a result of them; in cycle II, the teacher packs games that are more interesting and challenging for the student, but still in accordance with the student's characteristics; this is what causes enthusiasm and passion in the student to apply what he has learned. According to teacher skills base, this should be taught by a teacher (Febriana, 2019). The documentation in this stage is shown in Image 3.

Image 3. Games

In the Tournament phase, the researchers organise a tournament in which students compete based on their academic ability. Based on teacher interviews with students, students enjoy the tournament atmosphere because they are competent with capable academic peers. The timing of the activeness tournament is insufficient, and some students are still absent. The tournament procedure is still unclear. This is because the researchers state in the rules and procedures that tournaments can only be spoken orally. So in cycle II, the teacher sends the rules and procedures of the tournament on GREDU Belajar to help students remember them so that the tournament in the second cycle of students is more conducive. Besides that, the academic performance of the students remain low, not yet fully understood the subject. The

teacher should therefore ask each group to rediscuss what they have learnt while also helping their friend from that group. The prior student who refuse to respond to questions during the class changed after receiving treatment from their friend and is ready to take part and give his all for the squad.

In the Team Recognition stage, the teacher gives a reward to students who get a mark based on standards that have been determined. Aside from recognising the winning team, the teacher motivates all students in Cycle I by emphasising mark cooperation. Study groups and their importance explain draft material to friends who do not understand. This is expected to increase indicator student engagement in the future with gift motivation. In cycle II, there is an additional award for the other team that does not win. Students are seen happy when they get an A, although their team is not a champion. This is in line with Asmani (2016), who says that teachers need to give awards to successful groups so that other groups will learn from them as an role model.

From the stages that have been carried out, the average achievement results of student learning activeness are presented in the following graph.

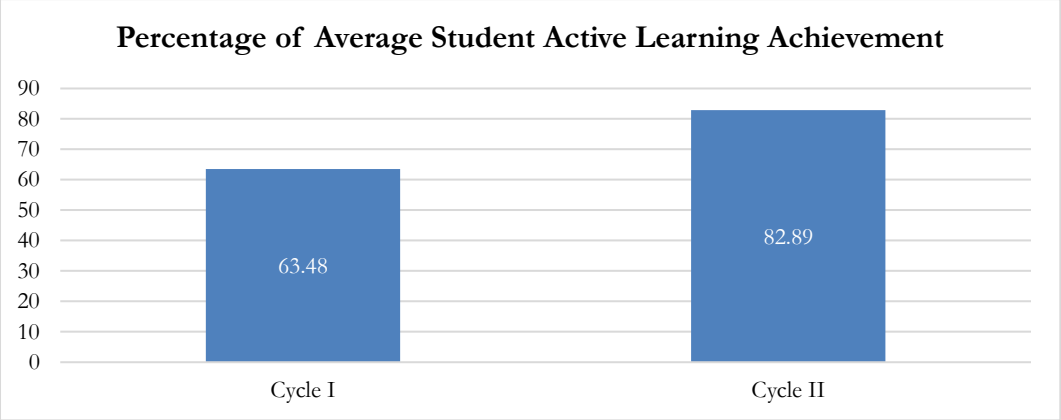

Figure 2. Percentage Average Achievement of Activeness Student

Based on the graph in Figure 2, you can see a comparison of the average student activeness in cycles I and II. In the implementation of cycle I, the average achievement of student activeness was 63.48%. During the implementation of cycle II, the average student activeness achievement increase by 19.41% from cycle I to 82.89%. This is in line with research from (Khusnudin et al., 2022), which states cycle I gets an average of 62.7% and cycle II gets an average of 82.2%. So from cycle I to cycle II, there is an increase of 19.8% by applying the TGT (Teams Games Tournament) model to increase activeness.

In cycle II, there are 38 students with very active criteria and 7 students with active criteria. Thus, it can be concluded that applying the Teams Games Tournament (TGT) cooperative learning model to the material on the respiratory system can increase student learning activeness. This indicates that the Teams Games Tournament model is in accordance with the characteristics of students who like to play, like challenges, and like to tell stories in groups. This learning model can also encourage students to carry out activities both physical in nature (such as observing, writing, and reading) and mental in nature (such as solving problems, analyzing, and making decisions). As a result, the application of the teams games tournament type cooperative learning model in the respiratory system lesson can increase students learning activeness of class XI MIPA 2 SMA Negeri 1 Kuta Utara.

CONCLUSION

From all the result and discussion, the cooperative learning of the Teams Games Tournament type on the respiratory system lesson can increase the students learning activeness of class XI MIPA 2 SMA Negeri 1 Kuta Utara. This is evidenced by the increase in the average level of student achievement. In cycle I, the average achievement of student activeness was 63.48%. During the implementation of cycle II, the average student activeness achievement increased by 19.41% from cycle I to 82.89%. In cycle II, there were 38 students with very active criteria and 7 students with active criteria.

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