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APPLICATION OF FLIPPED CLASSROOM AND TEAMS GAMES TOURNAMENT LEARNING TO INCREASE MOTIVATION AND ADAPTIVE PHYSICAL EDUCATION LEARNING OUTCOMES

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Abstract

The level of motivation and learning outcomes of physical education students is still in the low category, especially in participating in adaptive physical education lectures. Therefore, an effective adaptive physical education learning design or model is needed so that learning objectives can be achieved optimally. The learning model demanded by students today is a learning model that is open, flexible, accessible to students wherever and whenever. For this reason, one alternative to overcome low motivation and learning outcomes is to combine the flipped classroom and team games tournament learning models. The research method used is classroom action research using two cycles consisting of planning, action, observation, and reflection. Instruments and data collection techniques used observation guides, questionnaires, and tests. Qualitative descriptive techniques are used to analyze the results of observations, while quantitative descriptive techniques are used to analyze the results of questionnaires and learning outcomes. Based on the results of data analysis, it can be seen that the application of flipped classrooms and team games tournaments can increase motivation and adaptive physical education learning outcomes.

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INTRODUCTION

Adaptive physical education is one of the compulsory theoretical and practical courses, meaning that 1 credit discusses the theory in adaptive physical education and 1 credit develops teaching materials and puts the material into practice in the field. The allocation of this course is 2 credits or the equivalent of 100 minutes. However, the time allocated for 100 minutes is often an obstacle for lecturers and students to discuss and practice adaptive physical education learning materials. Therefore, an effective adaptive physical education learning design or model is needed so that learning objectives can be achieved optimally.

Based on observations while teaching adaptive physical education courses, several problems can be identified. First, students' learning motivation is in a low category. This is evident from the initial tests carried out, only 40% of students have motivation in the high category. Second, there are still 60% of students who have not completed learning. This is indicated by the results of the initial tests conducted by the lecturers which showed that only 40% of students obtained test results above the minimum completeness criteria. Third, the lack of reasoning and creativity of students in participating in adaptive physical education learning. This is indicated by the results of the tasks carried out by students. Based on the assessment, it was found that only 35% of students were able to understand the learning materials and were able to present creative adaptive physical education learning materials that could be applied to children with special needs (Educators, 2020).

The problems that exist during the adaptive physical education learning process should be resolved as quickly as possible. A lecturer has a very important role in choosing a learning method that can change students' views of the courses they teach so that students can increase motivation and develop creativity and learning outcomes (Saparwadi, 2016). The learning model demanded by students today is a learning model that is open, flexible, accessible to students wherever and whenever (Budiman, 2014). Therefore, we need a learning model that can overcome learning problems and be able to facilitate students to increase motivation and adaptive physical education learning outcomes, one of which is the flipped classroom.

The flipped classroom learning model is a technology-based learning model in which the process of providing learning materials is carried out before class and face-to-face learning is active so that it allows students to more easily understand learning materials (Muzyka & Luker, 2016). Based on the research results, it can be seen that learning using the model is flipped classroom-proven to be effective in improving students' creative attitudes, responsibility, learning skills, motivation, and learning outcomes (Pinontoan & Walean, 2020). With motivation, students will be happy and feel challenged to take part in learning. Someone motivated will carry out these activities so that students who are usually passive turn out to be more active (Hamzah, 2012).

In addition to using the flipped classroom, lecturers are also advised to use a variety of learning models or combine several learning models (Siregar, 2019). One of the combinations of learning models that can be applied by lecturers is to combine the classroom learning method flipped with the team games tournament. The Learning model team games tournament is one of cooperative learning that is easy to apply, involves the activities of all students

without having to have differences in status, involves the role of students as peer tutors, and contains elements of games and reinforcement (Hasanah & Rahman, 2017). Adaptive physical education learning activities with games designed in cooperative learning type team games tournaments allow students to learn more relaxed in addition to fostering responsibility, honesty, cooperation, healthy competition, and learning involvement, increasing student motivation and learning outcomes (Kii & Dewa, 2020). The application of the learning model team games tournaments can not only increase student learning motivation but can also improve student skills (Martindar & Hartati, 2018).

Based on the problems that occur in the adaptive physical education learning process, concrete steps are needed to improve these conditions. One alternative offered by the author is to apply the learning model flipped classroom and team games tournament. To the author's knowledge, until now no research has been conducted on the application of flipped classrooms and team games tournaments to increase motivation and adaptive physical education learning outcomes at the University of Bengkulu's physical education study program.

METHODS

The method in this study is a class 2 cycle action research method, namely research conducted by planning, implementing, observing, and reflecting on collaborative and participatory actions to increase motivation and learning outcomes for adaptive physical education.

Participants

The subjects in this classroom action research were all fifth-semester physical education students, Bengkulu University who took physical education lessons. adaptive with a total of 86 students.

Data Collection Instruments and Techniques

Data collection techniques used in this classroom action research are observation, questionnaires, and tests.

Procedures

The research procedure used in this study consists of planning, implementing actions, observing, and reflecting.

Planning

a. Studying adaptive physical education learning materials and their indicators.
b. Create a learning design that includes the Semester Lesson Plan
c. Preparation of research facilities and infrastructure which includes; learning resources, observation sheets, questionnaires, and tests.
d. Design assignments for students to do at home.

Actions

To facilitate the implementation of the action, the researchers developed a learning scenario using the flipped classroom learning method. The learning design that will be implemented is learning that is not only carried out in face-to-face classes but also outside the classroom by relying on internet media as communication and giving each other information. The Trello application is used to send learning materials before face-to-face classes are conducted. Furthermore, Whatsapp groups are used to discuss learning materials and to remind students to complete assignments given by the lecturer.

Team games tournament learning is done by dividing students into several groups consisting of four to five people with different levels of ability, gender, and ethnic background. Lecturers deliver learning materials, then students work in their teams to ensure that all team members have mastered the lesson. Then a tournament is held, where students play academic games with other team members to contribute points to their team scores. Team members will assist each other in preparing for the game by studying activity sheets and explaining problems to one another, ensuring individual responsibility is established. For learning through team games tournaments in the classroom, the lecturer makes a practice module to facilitate the learning process.

Observation

When students conduct discussions and carry out learning with team games tournaments in class, researchers record and observe each student's response in the learning process. The observation stage was carried out by researchers to observe every incident during the implementation of the action using the flipped classroom and team games tournament model. Observation activities are carried out at each meeting using observation sheets to determine the increase in motivation and learning outcomes of adaptive physical education.

Reflection

At this stage, the researcher carried out several processes in achieving the reflection stage and discussed with fellow adaptive physical education teachers to get user input. In addition, researchers also carried out several activities, namely; (a) Data analysis; after the data recorded through audiovisual tools was played back, the researchers conducted discussions with colleagues who collaborated about the results that had been obtained. The discussion covers the successes, failures, and obstacles encountered during the action. (b) Reducing data; The data obtained is then selected which is needed and can be used as a reference in compiling research reports. (c) Develop corrective measures; After getting an overview of the problems and obstacles found in cycle 1, the next step researchers restructured the activity plan to obtain good results in cycle 2.

Data Analysis

This study uses descriptive qualitative data analysis techniques. The data formed by words or sentences from the observations are processed into meaningful sentences and analyzed qualitatively. The data obtained from this study is also in the form of quantitative descriptive data in the form of simple numbers obtained from the results of the calculation of the observation sheet when the action is taken and presented in a structured form so that it is easy to understand.

RESULT

The results of the observations showed that at the pre-cycle stage as many as 50% of students were less motivated to attend adaptive physical education courses. This is known from the number of students who do not pay attention to the explanations of their friends and lecturers. After further investigation, it is known that the causes of the lack of student motivation in participating in adaptive physical education learning include students feeling bored with the online learning system through zoom which is carried out every meeting in one semester, signal interference when carrying out online learning via zoom.

This research was carried out using two cycles consisting of two learning models, namely the flipped classroom and the team games tournament. Cycle 1 using the flipped classroom learning model was held for three meetings starting on September 7, 2021 – September 21, 2021. The material in cycle 1 consisted of the history of adaptive physical education, the causes of special needs, and adaptive physical education planning strategies. The learning motivation and learning outcomes in cycle 1 can be seen in tables 1 and 2.

Table 1. Learning motivation cycle 1

Interval	Frequency	Description
➢ 84-100	5	Very high
➢ 68-84	10	High
➢ 52-68	55	Medium
➢ 36-52	10	Low
20- 36	6	Very low

Based on table 1, it can be seen that students' learning motivation in cycle 1 is in the medium category, namely as many as 55 students, while those in the high category are 10 students, 6 students are in the very low category, and 5 students are in the very high category.

Table 2. Learning outcomes for cycle 1

Interval	Frequency	Description
➢ 84-100	10	Very high
➢ 68-84	30	High
➢ 52-68	40	Medium
➢ 36-52	6	Low
20- 36	0	Very low

Based on table 2, it is known that student learning outcomes in cycle 1 are in the medium category, namely 40 students, while those in the high category are 30 students, 6 students are in a low category, and 10 students are in the very high category.

Cycle 2 using the flipped classroom learning model was carried out for three meetings starting on September 28, 2021 - to October 12, 2021, 2021. The material in cycle 1 consisted of designing learning materials with a playful approach for blind, deaf, and physically disabled children. The learning motivation can be seen in table 3.

Table 3. Learning motivation cycle 2

Interval	Frequency	Description
➢ 84-100	6	Very high
➢ 68-84	69	High
➢ 52-68	10	Medium
➢ 36-52	1	Low
20- 36	0	Very low

The flipped classroom learning model that has been applied to physical education students in adaptive physical education lectures has proven to be effective in increasing student learning motivation. This can be seen in table 3, namely, 6 students are in the very high category, 69 students are in the high category, 10 students are in the medium category, 1 student is in a low category, and no student has very low learning motivation.

Table 4. Learning outcomes for cycle 2

Interval	Frequency	Description
➢ 84-100	13	Very high
➢ 68-84	70	High
➢ 52-68	3	Medium
➢ 36-52	0	Low
20- 36	0	Very low

Adaptive physical education learning outcomes using the flipped classroom learning model also showed an increase. Based on table 4, it can be seen that 13 students have very high learning outcomes, 70 students are in the high category, 3 students are in the medium

category, and there are no students who are in the low or very low category.

Cycle 1 using the team games tournament (TGT) learning model was held for three meetings starting on 19 October 2021 – 2 November 2021. The material in cycle 1 consisted of developing learning materials with a playful approach for blind, deaf, and physically disabled children. The learning motivation in cycle 1 can be seen in table 5, while the learning outcomes can be seen in table 6.

Table 5. Learning motivation cycle 1

Interval	Frequency	Description
➢ 84-100	10	Very high
➢ 68-84	40	High
➢ 52-68	36	Medium
➢ 36-52	0	Low
20- 36	0	Very low

Based on table 5, it can be seen that the level of student learning motivation through the TGT learning model is in the high category with a frequency of 40 students. Meanwhile, there are 10 students in the very high category and 36 students in the medium category, and there are no students who have learning motivation in the low and very low categories.

Table 6. Learning outcomes for cycle 1

Interval	Frequency	Description
➢ 84-100	10	Very high
➢ 68-84	30	High
➢ 52-68	40	Medium
➢ 36-52	6	Low
20- 36	0	Very low

Student learning outcomes through the tgt learning model in cycle 1 were in the medium category with a frequency of 40 students, 36 students had high learning outcomes, and 10 students had very high learning outcomes.

Cycle 2 using the tgt learning model was carried out for three meetings starting on november 9, 2021 – november 23, 2021. The material in cycle 2 consisted of developing learning materials with a play approach for children who are speech impaired and mentally retarded. The learning motivation in cycle 2 can be seen in table 7, while the learning outcomes can be seen in table 8.

Table 7. Learning motivation cycle 2

Interval	Frequency	Description
➢ 84-100	12	Very high
➢ 68-84	70	High
➢ 52-68	4	Medium
➢ 36-52	0	Low
20- 36	0	Very low

Based on table 7, it can be seen that the level of student learning motivation through the TGT learning model is in the high category with a frequency of 70 students. Meanwhile, there were 12 students in the very high category and 4 students in the medium category, and there were no students who had learning motivation in the low and very low categories.

Table 8. Learning outcomes for cycle 2

Interval	Frequency	Description
➢ 84-100	10	Very high
➢ 68-84	70	High
➢ 52-68	6	Medium
➢ 36-52	0	Low
20- 36	0	Very low

Student learning outcomes through the TGT learning model in cycle 2 are in the high category with a frequency of 70 students, 10 students have very high learning outcomes, and 6 students have moderate learning outcomes.

DISCUSSION

In cycle 1 which uses the learning model, flipped *classrooms* know that students' motivation and learning outcomes are in the medium category. This is because students are not used to learning with the learning model *flipped classroom.* The level of student learning motivation can also be seen from the participation of students in class when taking adaptive physical education lessons. From the observations, the researchers found that most of the students were hesitant to ask questions about the material given by the lecturer. Students tend to be silent and accept all the information given by the lecturer. Students rarely give criticism, opinions, or ideas. When the lecturer asked the reason why students did not want to ask, most students felt confused and unable to ask. The inability of students to participate actively in learning in class is due to not mastering the material or not studying the learning material before the class starts.

To increase motivation and learning outcomes, the learning model is applied to flipped classrooms. The reasons for using the learning model Flipped classroom include efficient use of study time in class, providing more active learning opportunities for students, (3) increasing interaction between students and lecturers, (4) giving students greater responsibility for learning, and (5) able to provide various variations of learning to students (Rusnawati, 2020). The flipped classroom also offers easy learning by delivering materials learning online that allow students to access it flexibly (Nopiyanto, Raibowo, Novriansyah, & Ibrahim, 2021). (Nopiyanto, Raibowo, Novriansyah, & Ibrahim, 2021). The flipped classroom is oriented towards learning achievement by referring to the learning activities carried out by students. In other words, the flipped classroom facilitates students to learn in a way that they think is easy to achieve learning objectives. Through the Flipped Classroom, lecturers use learning online to make it easier for students to access and study learning materials. In the flipped classroom, learning materials are presented using videos, which are given at the beginning online and then followed by face-to-face meetings to discuss the material that has been learned. That way class activities focus more on student activities because the time usually used by students for lectures is delivered online. From this description, it can be seen that the model flipped classroom is inseparable from e-learning (Bishop & Verleger, 2013). In applying the model flipped classroom in adaptive physical education lectures, the research team used the help of various applications including WhatsApp, Trello, and youtube. The three applications were chosen because they can provide convenience for students to learn and understand learning materials and can increase learning motivation so that learning objectives can be achieved (Sahid, 2020).

After carrying out the process of reflection in cycle 1, the researcher arranged corrective steps to be applied in cycle 2. In cycle 2, the lecturers who taught courses more often provided motivation and explained in detail the learning objectives so that they were easily understood by students. In cycle 2, students are getting used to the applied learning model so that students are more motivated to take adaptive physical education courses so that it is easier to achieve learning goals. Various research results state that the application of the learning model is flipped classroom able to increase student motivation and learning outcomes (Dewi, 2020). The indicator of the success of the application of the flipped classroom in this study is

80% on learning motivation, meaning that 69 students have learning motivation which is high in adaptive physical education courses. Meanwhile, the indicator of success in learning outcomes in learning outcomes is 81%, meaning that 70 students have high learning outcomes in adaptive physical education lectures.

In cycle 1, which uses the TGT learning model, it is known that students' motivation and learning outcomes are in the medium category. Based on the results of observations, students still find it difficult to design forms of games that can be used for children with special needs such as blind, quadriplegic, and speech impaired. In addition, students admitted that they still have difficulty finding references regarding the form of game design that can be done by children with special needs in adaptive physical education learning. The difficulty of learning references will affect student motivation and learning outcomes in attending a lecture (Rohman & Karimah, 2018).

To increase motivation and learning outcomes, the TGT learning model is applied. The Learning model team games tournament (TGT) is cooperative learning that is easy to implement, involves the activities of all students without having to have any status differences, involves the role of students as peer tutors, and contains elements of games and reinforcement (Hasanah & Rahman, 2017). The students were divided into groups of four to five people with different levels of ability, gender, and ethnic background. Lecturers deliver learning materials, then students work in their teams to ensure that all team members have mastered the lesson. Then a tournament is held, where students play academic games with other team members to contribute points to their team scores. TGT adds an aspect of excitement for students through games. Team members will assist each other in preparing for the game by studying activity sheets and explaining problems to one another, ensuring individual responsibility is established. With joy in the learning process, it will increase student motivation and learning outcomes (Kurniati & Kurniawan, 2017).

The increase in student learning outcomes through this method is because the TGT cooperative learning model is more student-centered. During the learning process students are divided into small groups with heterogeneous abilities. Each student in the group will get a different task, and in the group, they will help each other to master the material or task assigned to the group. Furthermore, students will take part in inter-group tournaments. This learning model is very suitable to be applied to classes that have heterogeneous abilities because students with less ability will be assisted by students who have good abilities during group work (Sudimahayasa, 2015).

The indicator of the success of implementing the TGT learning model in this study was 81% on learning motivation, meaning that 70 students had high learning motivation in adaptive physical education lectures. Meanwhile, the indicator of success in learning outcomes in learning outcomes is 81%, meaning that 70 students have high learning outcomes in adaptive physical education lectures.

CONCLUSION

Based on the results of research and discussion, it can be concluded that the application of the flipped classroom learning model TGT learning model was able to increase learning motivation and learning outcomes in adaptive physical education.

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