

## Application Of The Stad Type Cooperative Learning Model To Improve Shooting & Dribbling Skills In Games

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### ABSTRACT

This study aims to improve dribbling and shooting skills in basketball games through the application of the STAD-type Cooperative learning model. (Student Teams Achievement Division) In class IX.1, students of SMP Negeri 3 Palembang. The problems faced are the low basic basketball technique skills of students, especially in the aspects of dribbling and shooting, as well as the lack of motivation and involvement of students in the learning process. This study is a Classroom Action Research (CAR) implemented in two cycles, with each cycle consisting of planning, implementation, observation, and reflection stages. Data were collected through observation of student activities, assessment of psychomotor skills, and documentation. The results of the study showed an increase in student skills from pre-cycle to cycle II. In the pre-cycle, the level of student skill completion only reached 26%. After the action cycle, I increased to 59%, and in cycle II increased significantly to reach 79% of students completed. The STAD type Cooperative Model provides opportunities for collaborative learning, group discussions, and joint exercises that encourage active participation and responsibility for learning for each group member. Thus, the application of the Cooperative learning model type STAD has proven effective in increasing skills, technique dribbling and students' basketball shooting, and has a positive impact on students' motivation, teamwork, and enthusiasm for learning.

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### AUTHORS' CONTRIBUTION

A. Conception and design of the study;  
B. Acquisition of data;  
C. Analysis and interpretation of data;  
D. Manuscript preparation;  
E. Obtaining funding

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## INTRODUCTION

Physical Education is one of the important components in the education system that aims to develop the physical, motor skills, and character of students through structured and directed physical activities. This definition is in line with the view (Arifin, 2020), which states that physical education is education that uses physical activity as a means to improve students' physical fitness and motor skills. According to Siedentop (2011), physical education is not only related to physical development, but also supports the social and emotional development of students, which will be very useful in everyday life. Therefore, physical education is a very integral aspect in the formation of student character. According to (Suharno & Wijayanti, 2023), physical education is not only useful

for improving physical fitness, but can also prevent mental health disorders such as stress and anxiety. Basketball is one of the sports taught in physical education in school. This game is played in a way team and emphasize on cooperation, team communication, game strategy, and individual technical skills. Basketball is very effective in improving the physical fitness, coordination, agility, and reflexes of students. According to Sutrisno (2022), basketball games in PJOK learning are not only focused on achieving scores, but more on developing basic skills such as passing, dribbling, shooting, and pivoting.

Through basketball games, students are also trained to think tactically and make quick decisions in dynamic game situations. According to (Mahendra & Sugiarto, 2021), good shooting ability is influenced by the harmony between the mechanical aspects of the body and the player's concentration ability. This technique involves coordinating the muscles of the arms, wrists, eyes, and legs, which must be in sync so that the ball can roll in the right direction and power into the basketball ring. According to Raharjo (2020), learning dribbling techniques must be done gradually and repeatedly, starting from the introduction of basic forms to application in real game situations. Physical education teachers need to provide varied and interesting exercises, such as mini games, time challenges, or pair exercises, so that students do not get bored and remain motivated. In terms of physical development, basketball is very effective in improving physical fitness, especially in terms of muscle strength, endurance, speed, and agility. Movements in the game, such as running, jumping, dribbling, and shooting, involve almost all parts of the body, so that they can strengthen muscles and joints, improve motor coordination, and train body reflexes (Muhajir & Mr. Gunawan, 2021).

The STAD (Student Teams Achievement Division) type of cooperative learning model is a cooperative learning approach developed by Robert Slavin and his team from Johns Hopkins University. STAD is one of the most widely used learning models in education because it emphasizes teamwork, individual responsibility, and group achievement. According to Slavin (2020), STAD is a cooperative learning method in which students work in small, heterogeneous groups to help each other understand the subject matter. This model is very effective in improving cognitive, affective, and psychomotor learning outcomes because it combines elements of cooperation, motivation, and shared responsibility. According to Slavin (2005), the STAD model can improve learning outcomes because it combines teamwork with individual responsibility. In PJOK learning, this model can provide opportunities for students to observe each other, imitate, and provide feedback on the techniques practised. In addition, cooperative learning is also believed to be able to create a more enjoyable and meaningful learning atmosphere (Wahyu Hoerudin, 2022) so that students do not get bored easily and are more actively involved in the learning process.

Another study by Ridhaningtyas et al. (2024) showed that the application of the STAD model in sports learning was able to significantly improve students' motor skills, including in mastering basketball playing techniques.

According to Slavin (2020) implementation model of STAD in learning follows five main stages, namely:

1. Presentation of Material: The teacher provides an introduction and classically explains the lesson material (for example, through direct explanation or demonstration).
2. Teamwork, Students work in small groups to discuss, understand, and do exercises or assignments together.
3. Quiz Individual, Every student does a quiz or test individually without help from groups, to find out each other's understanding.
4. Calculation Score Progress Individual: Score individual compared to previous scores to see improvements.
5. Team Awards: The group that shows the greatest progress is given an award, such as a certificate, praise, or extra points.

Physical education in junior high school aims to help students achieve a balance between physical, cognitive, and social development. This is in line with the view expressed by Arifin (2020), who stated that physical education in junior high schools functions as a means to develop physical fitness, motor skills, and social and emotional attitudes that will shape students into healthy and characterful individuals.

## METHODS

The research method used is Classroom Action Research. Method used in the study. This is a study action class (Classroom Action Research), and there are 3 instruments used to collect data, namely:

### 1. Observation observation

Observations are carried out during the implementation of learning. These observations are to find out the activities of students and educators, as well as the implementation of the teaching module and the implementation of learning during the teaching and learning process.

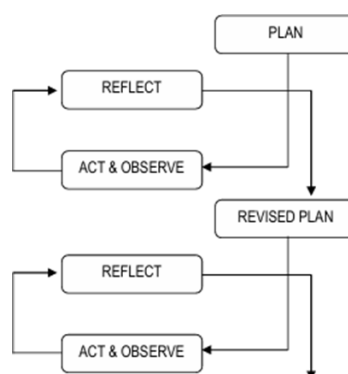
### 2. Test

This test is conducted to carry out the steps that are already in the teaching module and provide several questions to students (the test and teaching module are attached).

### 3. Documentation

This documentation is carried out during the implementation of learning to achieve learning outcomes that can provide information on student success data and documents in the form of photographs that describe the learning situation, as a complement to research that is adjusted to the steps in the learning method.

In this study, the researcher used the Kemmis and Mc Taggart action research model in the book (Arif & Oktafiana, 2023) he said that the Kemmis and Mc Taggart Model is a development of the basic concept introduced by Kurt Lewin, the difference lies only in the action stage (acting) and observation (observing) are made into one unit. This is because, in reality, in its implementation, these two stages are two activities that cannot be separated between action and observation.



**Picture 1.**

Research model class action Kemmis & McTaggart

## Data analysis

Study This implemented in several cycle, that is cycle Which One with that others are series Which each other related. To solve the problem, the it is done planning action and observation implementation are done, and reflected to know the results of the implementation of the action. Data in the form of numbers is analyzed using descriptive analysis, namely comparing conditions beginning with change Which happen on each action. The formula used to analyze the data in this study is: Analysis of shooting & dribbling skills test instruments.

$$\text{Final Score} : \frac{\text{score obtained}}{\text{Score Maximal}} \times 100\%$$

**Table 1.**  
Interval Mark

No	Interval Mark	Category
1	95- 100	Very good
2	85- 94	Good
3	75- 84	Enough
4	- 74	Not enough

## RESULTS AND DISCUSSION

### Result

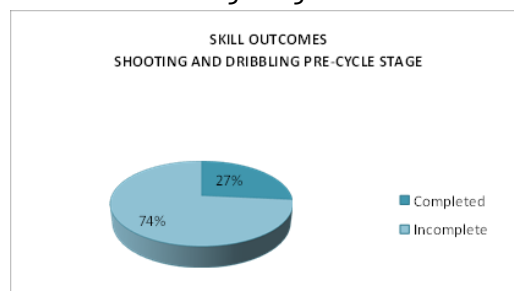
During the implementation of PPL in school JUNIOR HIGH SCHOOL State 3 Palembang, And researcher also teaching in class IX.1, when carrying out learning, the researcher saw that the basic shooting & dribbling skills of class IX.1 students were low, and students were less motivated to learn. This could be caused by learning that was too monotonous for them. Students. After knowing the problems faced, the researcher sought solutions for students to improve basic shooting & dribbling skills by implementing the STAD-type cooperative learning model. The researcher conducted a pre-cycle to collect initial data on shooting & dribbling skills in class IX.1 student of SMP Negeri 3 Palembang. The condition of the results of shooting & dribbling skills of class IX.1 students of SMP Negeri 3 Palembang before being given the action, namely:

**Table 2.**  
Result skills test shooting & Dribbling student class IX.1 Pre-cycle

No	Interval Mark	Category	Frequency	Percentage%
1	95- 100	Very Good	0	0%
2	85- 94	Good	0	0%
3	75- 84	Enough	9	26.5%
4	- 74	Not enough	25	73.5%
<b>Amount</b>			<b>34</b>	<b>100%</b>

Based on description result recapitulation data the beginning before given action so it can be explained that 0 students are in the very good category, 0 students are in the good category, 9 are in the sufficient category, and 25 students are in the less category based on the Learning Objective Achievement Criteria (KKTP) set by SMP Negeri 3 Palembang.

From the description of pre-cycle learning outcomes, the student completion rate, which is 27%, can be seen in the following diagram:



**Picture 2**

Percentage completeness of value shooting skills & dribbling pre-cycle

This research will be carried out according to the PTK (classroom action research) procedure, which consists of four stages, namely the planning, implementation, observation and reflection stages. The implementation of the action takes place for two cycles, each cycle consisting of one meeting, after which, at the end of each cycle, a shooting & dribbling skills test is taken. The subjects of this study were students of class IX.1 SMP Negeri 3 Palembang. Totalling 34 students. In implementing the action, the researcher acted as a PPG teacher who taught. The implementation of this research began on April 14, 2025, to April 28, 2025.

### Results Observation Cycle I

#### Cycle 1

**Planning**, in stages. These researchers, who as teachers compile learning scenarios consisting of:

1. Compile a Lesson Plan model based on STAD with material dribbling and shooting.
2. Forming a group Study heterogeneous (ability) tall, currently, low.
3. Compile a Worksheet For group activities.
4. Compile rubric evaluation skills, dribbling and shooting.
5. Prepare media and tools, including basketballs, cones, and a whistle.
6. Insert game elements (relay, dribbling and shooting challenge).

**Implementation**, at this stage, the researcher, who as a teacher, carries out learning as follows:

1. Activity beginning,
  - a. The teacher opens the lesson with regards, prayer, and appreciation.
  - b. Convey learning objectives and brief motivation (e.g. "best dribble" challenge).
  - c. The teacher shows a video of learning Dribbling & shooting, and students describe in the LKPD the techniques and procedures for implementing dribbling & shooting.
  - d. Convey the rule, Work group, and importance of Work. The same
2. Activity core,
  - a. The teacher explained technique-based dribbling and shooting.
  - b. The student was divided into the STAD group.
  - c. Students do exercises, dribbling techniques, static and dynamic.
  - d. Play the "Dribbling Relay" game between groups to practice ball control and cooperation.
  - e. Carry on to exercise shooting, simple (in pairs).
  - f. Teacher and observer take notes development of the student in a way individual and group settings.
3. Activity Closing,
  - a. Short reflection: each group shares their difficulties and successes.
  - b. The teacher gives appreciation to the group's best and most active students.
  - c. Summarise the day's learning and convey the next learning plan.

**Observation**, at this stage, while the researcher is carrying out learning, the researcher is observing the students' development, so the following observation results are obtained:

1. Results observation shows part big students still have difficulty in controlling the ball while moving.
2. A group with dominant members tend to dominate exercise.
3. The atmosphere class starts actively; however, there are several students Which passive.
4. Results test shooting ability & dribbling

Results of skills shooting & dribbling on stage cycle 1 can be seen in the table below.

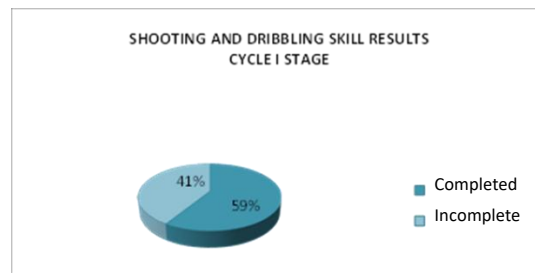
**Table 3.**

Results test skills shooting & Dribbling student class IX.1 Cycle I

No	Interval Mark	Category	Frequency	Percentage%
1	95- 100	Very Good	0	0%
2	85- 94	Good	0	0%
3	75- 84	Enough	20	58.8%
4	- 74	Not enough	14	41.2%
<b>Amount</b>			<b>34</b>	<b>100%</b>

From the interval data above, based on the implementation of cycle I, it can be explained that 0 students are in the very good category, 0 students are in the good category, 20 are in the sufficient category, and 14 students are in the less category based on the Learning Objective Achievement Criteria (KKTP) set by SMP Negeri 3 Palembang.

From the description of pre-cycle learning outcomes, the student completion rate, which is 59%, can be seen in the following diagram :



**Picture 3.**

Percentage completeness of value shooting skills & dribbling Cycle I

**Reflection**, at the end cycle, researchers always do reflection to activity the previous learning, so that the researcher obtains the following reflection results:

1. Excess: students are more enthusiastic, and the class atmosphere is more alive.
2. Lack: need to emphasise the more specific technique and the distribution role in more even groups.
3. Action carry on: repair technique exercise so that more directed, and give role assignments in the group (recorder, trainer, motivator, etc.).

### **Results Observation Cycle II**

Cycle II

**Planning**, after conducting cycle 1, the researcher has found the results of the reflection and will be carried out in cycle 2, so the researcher carries out the following planning to overcome the problems that exist in cycle 1:

1. Revise the lesson plan by emphasising basic techniques that have not been mastered (dribbling with direction control, and transition to shooting).
2. Compile activity group with task role (coach small, recorder, etc.).
3. Add a variation game with "Dribbling" & Shoot Race".
4. Provide evaluation structured formative evaluation.

**Implementation**, after doing planning, moment researcher will apply it to learning, which can be seen in the sequence of activities below:

1. Activity beginning
  - a. Opening with regards, prayer, apperception.
  - b. Review the material previously by asking and answering short questions.
  - c. Convey objective learning and motivation through game rewards.
2. Activity core,
  - a. The teacher shows a video of learning Dribbling & shooting, and students describe in the LKPD the techniques and procedures for implementing dribbling & shooting.
  - b. Warm-up and demonstration of specific techniques: zigzag dribbling, transition to shooting.
  - c. Students practice in groups, assisted by group members who act as "little coaches".
  - d. "Dribble & Shoot Race" game to practice ball control and shooting transitions.



- e. Teachers and observers recorded students' motor development and group interactions.
3. Activity Closing
  - a. Every group convey results and short reflection.
  - b. Teachers provide feedback and appreciation to students or groups who show progress.
  - c. Conclude the material and give motivation for the meeting next.

**Observation**, after doing learning and during learning researcher conducted observations on students' abilities, and the following observation results were obtained:

1. Students showed significant improvement in dribbling and shooting skills.
2. Cooperation in a group is Good; all students are active according to their role.
3. Motivation and enthusiasm increase because existence variation game and rewards.
4. Results test shooting ability & dribbling

The results of shooting & dribbling skills at the cycle 1 stage can be seen in the table below:

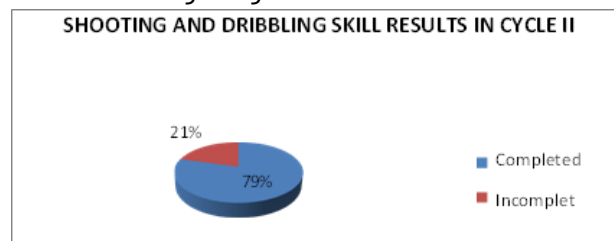
**Table 4.**

Test results skills shooting & Dribbling student class IX.1 Cycle II

No	Interval Mark	Category	Frequency	Percentage%
1	95- 100	Very Good	0	0%
2	85- 94	Good	10	29.4%
3	75- 84	Enough	17	50%
4	- 74	Not enough	7	20.6%
<b>Amount</b>			<b>34</b>	<b>100%</b>

From the interval data above, based on the implementation of cycle II then it can be explained that 0 students are in the very good category, 10 students are in the good category, 17 are in the sufficient category, and 7 students in the less than adequate category based on the Learning Objective Achievement Criteria (KKTP) set by SMP Negeri 3 Palembang.

From the description of pre-cycle learning outcomes, the student completion rate of 79% can be seen in the following diagram:



**Picture 4.**

Percentage completeness of value shooting skills & dribbling Cycle II

**Reflection**, at the end session cycle study, do reflection as follows:

1. Advantages: students better understand basic techniques, participation increases, healthy competitive class atmosphere.
2. Disadvantages: There are still some students who need more intensive guidance. Individual.



3. Conclusion: The STAD model is effective in improving student motor skills and participation in basketball learning.

## Discussion

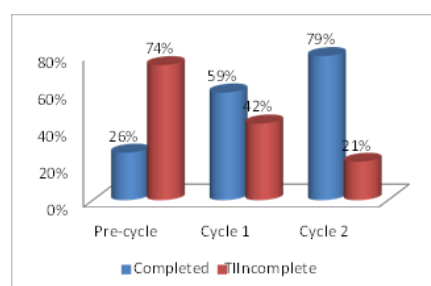
After implementation of action learning with Applying the Model STAD (Student Teams Achievement Divisions) type cooperative learning in basketball learning, specifically material shooting and dribbling, the results study show significant improvement in students' motor skills. These results can be proven through student skill assessments conducted at the end of each cycle.

This research was conducted in two cycles, each consisting of one meeting. In cycle I, the researcher began to implement STAD-type cooperative learning by forming heterogeneous learning groups, conveying learning objectives, giving group assignments, and conducting individual and team evaluations. However, in its implementation, several shortcomings were still found, such as the division of roles in the group that was not optimal, the lack of variation in technique exercises, and the lack of active involvement of all team members.

Through reflection, which is done after cycle I, researchers reflect on cycle II. Improvements were made by providing clearer instructions, compiling more interesting and challenging exercise variations, and optimising the role of each group member. Results of cycle II showed a significant increase in students' dribbling and shooting skills, as well as increased motivation and teamwork during the learning process. The results of students' skills before the action showed that only a small number of students mastered the basic techniques of shooting and dribbling well. After the implementation of cycle I, there was an increase in skills, although there were still some shortcomings. However, in cycle II, most students had achieved the criteria for completing motor skills. This is shown in the following table:

**Table 5.**  
Description completeness skill result shooting & dribbling

Results Study	Completed	No Completed
Precycle	26%	74%
Cycle- 1	59%	41%
Cycle- 2	79%	21%



**Picture 5.**

Recap Completeness diagram results shooting skills & dribbling.

From the table and diagram, it can be concluded that there is a very significant increase in basketball shooting and dribbling skills after the implementation of the STAD-type cooperative learning model.

The STAD model is very effective because it combines individual learning and teamwork, and encourages students to help each other and take responsibility for their collective progress. According to Slavin (2020), STAD helps improve learning outcomes because each team member has a role, and team achievements are rewarded based on the individual improvements of its members. In the context of basketball learning, this approach has been shown to increase student engagement in practice, strengthen a sense of responsibility, and create a collaborative learning atmosphere.

Cognitively, students better understand the principles of basic dribbling techniques and shooting, such as body position, hand usage, and motor coordination. They not only memorise techniques, but also learn why they are important and how to use them in real games. Psychomotorically, group exercises with reinforcement from teachers and peers help students to perfect their technique, increase control ball, accuracy shooting, as well as speed and coordination when dribbling.

## CONCLUSION

Based on the results of classroom action research that has been carried out in two cycles, it can be concluded that:

1. The application of the STAD type cooperative learning model has proven to be effective in improving the shooting and dribbling skills of basketball students in class IX.1 SMPN 3. Palembang. This is indicated by the increase in the number of students who achieved skill completion from pre-cycle to cycle II.
2. In the pre-cycle, most students have not mastered the basic skills of shooting and dribbling, with a completion rate of only 26%. After the action was taken in cycle I, there was an increase to 59%, and in cycle II, the completion rate reached 79%.
3. The STAD model encourages active, collaborative, and fun learning, which increases student engagement in the exercises. Students learn not only individually, but also through teamwork, which strengthens their understanding of techniques. And learning motivation.
4. Improvement of students' skills occurs not only in psychomotor, but also in cognitive and affective aspects, such as understanding the concept of movement, sportsmanship, responsibility, and self-confidence.

## ACKNOWLEDGMENT

1. For Schools: Schools should provide support for the implementation of innovative learning models, as well as provide adequate sports facilities and infrastructure to support the PJOK learning process.
2. For PJOK Teachers: It is recommended to integrate the STAD type Cooperative learning model in learning motor skills, especially basketball, because it has been proven to improve student learning outcomes as a whole.

3. For Students: Students are expected to actively participate in collaborative learning, support each other in groups, and practice consistently so that technical skills can develop optimally.

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