Original Article

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The influence of the NHT type cooperative learning model on the accuracy process of passing

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Abstract: This research aims to determine the influence of the NHT-type cooperative learning model on the process of upper passing accuracy of volleyball for students of Mattayom 6 Vuttisatvittayanusorn School Krabi. This research applied Classroom Action Research (CAR), which consisted of three cycles. Each cycle covered three meetings. The subjects of this research were 20 students in class Mattayom 6 Vuttisatvittayanusorn School Krabi. The instruments used in this study were the upper passing assessment sheet and observation sheet for students. The observation results indicate that upper passing learnings through the NHT Mattayom 6 Vuttisatvittayanusorn School Krabi type cooperative learning model for three cycles influence the process of upper passing accuracy. This is manifested in the learning observations of 20 students. In cycle I, four students achieved a higher score of minimum learning mastery standard (KKM 70). In cycle II, it increased to 8 students. Then, in cycle III, it increased to 17 students who achieved the score of minimum learning mastery standard (KKM) 70. Thus, more than 85% of students have completed classical completion in this class.

Keywords: Cooperative Learning Model, NHT type, upper passing accuracy of volleyball

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INTRODUCTION

Physical education is an important part of overall education which aims to improve physical fitness, movement skills, social skills, reasoning, emotional stability, moral actions, healthy lifestyles, and environmental awareness through well-planned physical, sports and health activities to achieve national education goals. Physical and Health lessons aim to help students develop their self-management skills in order to improve and maintain physical fitness and lifestyle through various sports activities of their choice. (Andika et al., 2017)

Physical education, sport and health (PJOK) is an important component of the education system. PJOK focuses on developing the psychomotor domain, but does not ignore the development of the cognitive and affective domains, which makes it unique in education.. (Mashud, 2018)

Considering the importance of the role and goals of education, a teacher or prospective teacher needs to understand and study learning models that are suitable for the subjects being taught, because learning models are an important aspect in the PJOK learning process. Learning is a system consisting of components that are connected to each other, including learning objectives, materials, and evaluation. (Octavia, 2020)

With a thorough understanding of various learning models, it is hoped that teachers can create conducive learning conditions. In the learning process of physical education, sport and health, especially game material, the learning models used are still less varied, so students quickly feel bored in following the learning process, as a result the learning process does not achieve the programmed goals. (Andika et al., 2017)

One sport that is quite popular is volleyball. Volleyball is a game played by two teams, each consisting of 6 people. Each player has special skills, including as a hitter, setter and libero. The main objective in this game is to hit the ball and direct it to the opponent's field in such a way that the opponent cannot return the ball. (Pranopik, 2017)

Overhead passing is a basic technique that is done with both wrists using the player's fingers to control the ball in the direction it is going (Mushofi, 2017). Top Passing is a very important basic technique. The aim of top passing is to make a pass to your own team to create an attack or smash. This technique is quite difficult to practice, because it requires focus and good coordination. So there needs to be good training with the right learning model.

(Julaeha & Erihadiana, 2022) States that a learning model is a conceptual framework used as a guide in carrying out work, or a systematic representation for the learning process to help students learn to achieve the desired goals. The learning model refers to the way learning material is presented, including everything before, during and after learning is carried out as well as all the tools used in the teaching and learning process, both directly and indirectly.

This can be interpreted that the learning model is a tool for designing something systematically. One learning model that is suitable for use in sports subjects is cooperative learning "Cooperative learning is a learning method that is deliberately created to encourage positive interactions between students to prevent conflict and misunderstanding that can lead to disagreements" (Eldisyam, 2021)

Based on the quote above, the cooperative learning model is a model that has the concept of small groups that require cooperation to solve a problem or get a solution to achieve a common goal. The Numbered Heads Together (NHT) learning model is a type of cooperative learning model that was created to change the way students interact and as another option to help students understand concepts mathematically (LULU, 2021). While obeying (Alkindi et al., 2021) Number Head Together (NHT) It is a learning approach that focuses on student practice in identifying, preparing, and presenting information from various sources that will be discussed in class. There are various types of Cooperative Learning models, including the Numbered Head Together (NHT) type. As a form of Cooperative Learning, the NHT model is not too different from other types which prioritize cooperation in groups. In addition, according to Spencer , the NHT model involves students in evaluating the material that has been taught and testing their understanding of the subject matter." (Eldisyam, 2021). The Number Head Together (NHT) learning model has several advantages, such as: 1) this model requires all students to participate actively, 2) by using this model, students are expected to be involved in serious discussions, 3) students who have high abilities can help students who have lower abilities (Juliartini & Arini, 2017)

Based on the literature review above, the NHT type cooperative learning model and mastery of passing have been researched extensively and in depth, although in separate studies. According to the phenomenon that researchers found based on teaching experience at the Vuttisatvittayanusorn Islamic school Krabi, several problems were found, including students being less able to master volleyball passing techniques and a lack of learning

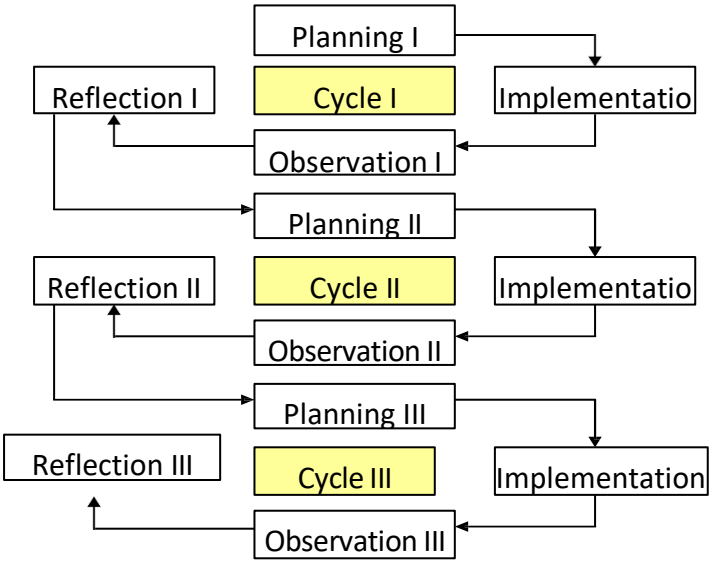
variations in sports subjects. As a result, learning becomes less conducive and there is a lack of mastery in carrying out basic techniques.

Based on the problems above, the researchers provide a solution by analyzing and how much influence NHT type cooperative learning has on the accuracy of volleyball passing techniques. which was designed as research using a literature study approach

MATERIAL AND METHODS

This type of research uses the action research method. This classroom action research (CAR) was carried out in three cycles with each cycle consisting of one meeting. The first meeting involved providing material and observing learning activities, the second meeting provided repetition of material and the third meeting provided material and consolidation as well as observing learning activities and evaluating top passing skills. The object of research for this top pass was the 6th grade students of Mattayom Vuttisatvitayanusorn School, 20 students, 10 boys and 10 girls. The instrument that the author uses in collecting data for this research is Quantitative (Descriptive) by calculating the percentage of students' "duration and number of ball bounces" in passing the ball.

Research Design summarized from (Digilib UNILA, 2016) in Arikunto (2006), according to Kemmis and McTaggart, the research process consists of four main steps, namely planning, implementation, observation and reflection. This model can be illustrated as follows:



The research design uses the Kemmis and McTaggart model in the form of a cyclical spiral system of self-reflection including stages:

1. Cycle I

1) Planning

In this stage the author prepares several things, including:

a. Determining Materials and Teaching Materials
b. Develop a learning plan that refers to the volleyball passing tutoriallearning video link
https://youtu.be/opQdKTMFzZE?si=1Ma7jHFKASdTza6M
c. Develop a format for implementing the NHT type cooperative learning model
d. Prepare Pre-test and Post-test assessment sheets
e. Prepare learning devices during the learning process
f. Prepare observation sheets to observe students in passing overhead

2) Action

a. Early stage
   1) Perform static and dynamic opening greetings and warm-up
   2) Convey learning objectives, motivation to raise awareness of the importance of sport
   3) Deliver basic volleyball material on basic passing techniques
b. Core Stage
   1) Conduct individual pre-tests on upper passes to determine students' current abilities in order to obtain initial scores
   2) Assess each student who performs the passing technique over individuals simultaneously by dividing them into 5 groups for 1 minute and sorting students who are already clever or expert
   3) Delivering and giving examples of volleyball passes and using the NHT type cooperative learning model by calling on students who are already smart
   4) Practicing the material that has been delivered directly in groups within 1 minute.
c. Final Stage
   1) Carry out cooling after the core stage is complete

2) Concluding the results of learning the big ball volleyball top passing technique with a provisional score of 4 being said to be expert meeting the KKM standard
3) Give assignments by watching video tutorials on passing volleyball
4) closing

3) Observing

At this stage, it is carried out simultaneously during the learning process. Researchers are assisted by observers in observing classroom actions by using observation sheets to monitor student activities during the teaching and learning process. To determine the level of student success, evaluation is carried out directly through direct observation in the field using an observation sheet.

4) Reflecting

Data obtained from student observation and learning when learning top passing techniques in a big volleyball game was obtained by 4 students in the clever category. Next, it will be analyzed with the help of clever students to reflect on. This aims to determine the progress achieved from the application of the NHT type cooperative learning method. After reflection, Cycle I will be used as a guide to make improvements in Cycle II.

2. Cycle II

At the end of cycle I, temporary data was obtained, of which the next follow-up was to carry out repetitions to see the significant influence in the application of the NHT type cooperative learning model on the material of big balls, overhead passing. The implementation is as follow :

1) Planning

In this stage the author prepares several things, including:

a. Note down obstacles while students are passing through
b. Designing Improvements according to cyclical reflection I
c. Develop a format for implementing the NHT type cooperative learning model
d. Prepare learning devices during learning
e. Prepare observation sheets to observe student learning

2) Action

At this stage students will be specifically implemented directly in applying the NHT type learning model in upper passing with 3 hours of lessons in 1 meeting.

a. Early stage

1) Performing Static and Dynamic Opening Greetings and Warm-Ups
2) Conveying learning objectives and motivation to raise awareness of the importance of sport
3) Reviewing volleyball material on basic passing techniques based on previous assignments, namely through videos that have been viewed.

b. Core Stage

1) Divide the student groups into 4 groups, in which there is 1 smart person.
2) Assess each student in carrying out the top passing technique in groups that have been divided into one of them as a mentor for 5 minutes
3) Playing games as a medium of entertainment
4) Final Stage
5) Carry out cooling after the core stage is complete
6) Concluding the results of learning the big ball volleyball top passing technique with scores obtained from 4 groups, 2 of the groups were able to pass correctly
7) Give assignments by making videos of individual overhead passing techniques
8) Closing

3) Observing

At this stage, it is carried out simultaneously during the learning process. Researchers are assisted by observers in observing classroom actions by using observation sheets to monitor student activities during the teaching and learning process. To determine the level of student success, evaluation is carried out directly through direct observation in the field using an observation sheet.

4) Reflecting

Data obtained from student observation and learning when learning top passing techniques in a big volleyball game was obtained from an increase of 4 students to 8 students in the category of meeting standards. Next, it will be analyzed with the help of smart students to reflect on. This aims to determine the progress achieved from the application of the NHT type cooperative learning method. After reflection, Cycle I will be used as a guide to make improvements in Cycle II.

3. Cycle III

At the end of cycle II, temporary data was obtained and the next follow-up was to carry out repetition and consolidation to see the significant influence in the application of the NHT type cooperative learning model on the material of big balls passing over. The implementation is as follows:

1) Planning

In this stage the author prepares several things, including:

a. Note down obstacles while students are passing through
b. Prepare postest
c. Designing Improvements according to cyclical reflection I
d. Develop a format for implementing the NHT type cooperative learning model
e. Prepare learning devices during learning
f. Prepare observation sheets to observe student learning

2) Action

At this stage students specifically applied directly to the NHT type learning model in upper passing with 2 hours of lessons in 1 meeting.

a. Early Stage
   1) Performing Static and dynamic Opening Greetings and Warm-up
   2) Conveying learning objectives and motivation to raise awareness of the importance of sport
   3) Reviewing volleyball material on basic passing techniques based on previous assignments, namely through videos that have been viewed.
b. Core Stage
   1) Divide the student groups into 5 groups, each of which meets the assessment criteria
   2) Assess each student in carrying out the top passing technique in groups that have been divided into one of them as a mentor for 5 minutes
   3) Playing games as a medium of entertainment.
c. Final Stage
   1) Carry out cooling after the core stage is complete

2) Concluding the results of learning the big ball volleyball top passing technique with scores obtained from 5 groups, 4 of the groups were able to pass correctly
3) Appreciating the results of the last meeting in learning basic volleyball passing techniques.
4) closing

3) Observing

At this stage, it is carried out simultaneously during the learning process. Researchers are assisted by observers in observing classroom actions using descriptive quantitative assessment sheets to monitor student activities during the teaching and learning process. To determine the level of student success, evaluation is carried out directly through field observations using observation sheets.

4) Reflecting

Data obtained from student observation and learning when learning top passing techniques in a big volleyball game was obtained from an increase of 4 students to 8 students in the category of meeting standards. Next, it will be analyzed with the help of smart students to reflect on. This aims to determine the progress achieved from the application of the NHT type cooperative learning method. After reflection, Cycle I will be used as a guide to make improvements to the Cycle II. The assessment scores can be seen in the following table:

Table 1. Assessment Criteria

No.	TIME	REFLECTION	MARK	INF.
1.	60 s	21-25	100	Complete
2.	60 s	16-20	85	Complete
3.	60 s	11-15	70	Complete
4.	60 s	6-10	55	Not Completed
5.	60 s	0-5	40	Not Completed

RESULTS

In connection with the learning process in the initial conditions it also has an impact on student learning outcomes. Student learning results in the initial conditions showed that in cycle 1 out of 20 students, only 4 students (20%) achieved the predetermined criteria, while

16 students (80%) had not achieved the expected criteria, with the total final class score being 1,090 and the value class average 54.5. More details are presented as follows

Table 2. Top Passing Skills of Mattayom Students 6 Vuttisatvittayanusorn Cycle I

NO	NAME	CATEGORY		MARK	INF.
		TIME	REFLECTION		
1	S1	60 s	9	55	Not Completed
2	S2	60 s	25	100	Completed
3	S3	60 s	10	55	Not Completed
4	S4	60 s	8	55	Not Completed
5	S5	60 s	8	55	Not Completed
6	S6	60 s	7	55	Not Completed
7	S7	60 s	20	85	Completed
8	S8	60 s	4	40	Not Completed
9	S9	60 s	2	40	Not Completed
10	S10	60 s	1	40	Not Completed
11	S11	60 s	6	55	Not Completed
12	S12	60 s	14	70	Completed
13	S13	60 s	8	55	Not Completed
14	S14	60 s	7	55	Not Completed
15	S15	60 s	4	40	Not Completed
16	S16	60 s	7	55	Not Completed
17	S17	60 s	7	55	Not Completed
18	S18	60 s	3	40	Not Completed
19	S19	60 s	19	85	Completed
20	S20	60 s	9	55	Not Completed
Average					54,5
Final Score					1090

Table 3. Top Passing Skills of Mattayom Students 6 Vuttisatvittayanusorn Cycles II

NO	NAME	CATEGORY		MARK	INF.
		TIME	REFLECTION		
1	S1	60 s	9	55	Not Completed
2	S2	60 s	25	100	Completed
3	S3	60 s	10	55	Not Completed
4	S4	60 s	14	70	Completed
5	S5	60 s	8	55	Not Completed
6	S6	60 s	7	55	Not Completed
7	S7	60 s	23	100	Completed

8	S8	60 s	6	55	Not Completed
9	S9	60 s	6	55	Not Completed
10	S10	60 s	3	40	Not Completed
11	S11	60 s	8	55	Not Completed
12	S12	60 s	14	70	Completed
13	S13	60 s	9	55	Not Completed
14	S14	60 s	13	70	Completed
15	S15	60 s	7	55	Not Completed
16	S16	60 s	9	55	Not Completed
17	S17	60 s	16	85	Completed
18	S18	60 s	5	40	Not Completed
19	S19	60 s	20	85	Completed
20	S20	60 s	16	85	Completed
Average					60,5
Final Score					1210

Based on the evaluation results in cycle II, students' ability to pass overhead has increased. Of the 20 students' scores, 8 students (40%) reached the predetermined criteria, while 12 students (60%) did not reach the expected criteria, with the final class score being 1210 and the class average score being 60.5.

Table 4. Top Passing Skills of Mattayom Students 6 Vuttisatvittayanusorn Cycles III

NO	NAME	CATEGORY		MARK	INF.
		TIME	REFLECTION		
1	S1	60 s	11	70	Completed
2	S2	60 s	25	100	Completed
3	S3	60 s	13	70	Completed
4	S4	60 s	18	85	Completed
5	S5	60 s	14	70	Completed
6	S6	60 s	17	85	Completed
7	S7	60 s	24	100	Completed
8	S8	60 s	14	70	Completed
9	S9	60 s	8	55	Not Completed
10	S10	60 s	5	40	Not Completed
11	S11	60 s	16	85	Completed
12	S12	60 s	21	100	Completed
13	S13	60 s	17	85	Completed
14	S14	60 s	20	85	Completed
15	S15	60 s	14	70	Completed

16	S16	60 s	15	70	Completed
17	S17	60 s	18	85	Completed
18	S18	60 s	6	55	Not Completed
19	S19	60 s	22	100	Completed
20	S20	60 s	19	85	Completed
Average					74
Final Score					1480

The results of student performance tests in Cycle III have increased. The scores of the 20 students were 17 students (85%) who reached the predetermined criteria, while 3 students (15%) had not reached the expected criteria, with the final class score being 1,489 and the average class score being 74.

CONCLUSION

Based on the results of observations, it can be concluded that learning upper passing of volleyball through the NHT type cooperative learning model for students at Mattayom 6 Vuttisatvittayanusorn school Krabi for 3 cycles can influence the process of upper passing accuracy. This can be proven from the results of observations of student learning outcomes from 20 students. In cycle I, the number of students who achieved grades according to the new criteria was 4 students. In cycle II, it increased to 8 students, then in cycle III, it increased to 17 students who achieved grades according to the criteria. It means that classical completion in this class has reached more than 85% of students who achieved the assessment criteria.

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