

Effect of Cooperative Learning Methods, Command and Motion Coordination on Basic Volleyball Techniques

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ABSTRACT

This study addresses the issue of poor basic volleyball skills among extracurricular students at SMP Negeri 02 Rambah Samo, as observed in serving, passing, and other fundamental techniques. During serving, movement coordination is inconsistent. In bottom passing, students struggle to control the ball, while in upper passing, their finger control is rigid, causing double touches. This quasi-experimental research aims to determine the effects of learning methods and motion coordination on mastering basic volleyball techniques using a factorial 2x2 design. The population includes 44 male students in volleyball extracurricular activities, with total sampling used. The research employs a quantitative approach with volleyball skill tests for upper and lower passes and a service test. The findings reveal: (1) Differences in basic volleyball skills between students trained using cooperative and command learning methods; (2) An interaction between learning methods and motion coordination affecting skill mastery; (3) Students with high motion coordination excel in basic skills when trained using command learning methods rather than cooperative methods; and (4) Students with low motion coordination perform better when trained using cooperative learning methods than command methods. This study highlights the importance of tailoring training methods to students' motion coordination levels for improved skill development.

Keywords: Cooperative Learning; Command and Coordination of Motion; Basic Volleyball Techniques

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INTRODUCTION

Volleyball coaching carried out by the Indonesian volleyball association is a very complex activity, especially since the high expectations of the community for volleyball sports achievements will add to the challenges of coaching, to answer these challenges the coaching pattern carried out must be planned, systematic and conceptual. So far, coaching that has been carried out instantly or in the short term has turned out to be less than satisfactory. Therefore, to achieve peak achievement, a coaching pattern that is tiered, regular and directed over a relatively long period of time is needed.

To realize a coaching pattern above, one of them is coaching student sports clubs at school. Through this learning, it is expected that the seeds of athletes will grow and the interests and talents possessed by students will be channeled. There are three types of curricular activities, namely intracurricular, co-curricular, and extracurricular activities. Intracurricular activities are activities carried out by schools with time allocation according to the program structure. Volleyball is one of several sports that are developed through self-development or extracurricular activities at SMP Negeri 02



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Rambah Samo To produce good basic volleyball techniques, quite complex movement components are needed. In the game of volleyball, there are several forms of techniques that must be mastered, namely: service, upper pass, passing, bait (set-up), hit (smash) and dam (block).

Based on the author's observations, when in extracurricular volleyball activities on the field, there are still many students who do not have good basic technical skills, or are not as expected. This can be seen when serving, passing under, passing over. When seen when serving, the coordination of movements has not run properly, the direction of the ball is wide to the left or right of the field, and the ball does not even pass through the net. When passing under, most students cannot control the ball well. Of the factors above, one of the factors that affects basic volleyball techniques is the training method used. There are many methods used to improve students' basic volleyball techniques. One of them is the Cooperative Method, many methods are able to improve basic volleyball technique skills, but it is still not certain which method is the most appropriate to be done to improve students' basic volleyball technique skills, especially for students of Extracurricular SMP Negeri 02 Rambah Samo. In addition, does motor coordination also affect students' basic volleyball technique skills?

LITERATURE REVIEW

Volleyball was created in 1895 by William G. Morgan, Holy Yoke, Massachusetts, United States. WG Morgan created a game in the air by hitting, passing through a net stretched with an equal field area. The ball used at that time was taken from the inside of a basketball and the net used was a net for playing tennis. At first this game was named Minonette. Then on the advice of Dr. Halsted Spingfield the name was changed to Vollyball which means volleying the ball alternately Munasifah (2008).

Muhajir (2004) "states that technique is a way of doing or carrying out a certain goal efficiently and effectively. An almost similar opinion was also expressed by Syfruddin (2011) "states that technique is a method used or developed by a person or athlete to complete/solve a movement task in sports effectively and efficiently. According to Erianti (2004) "A serve is the start of a game or the opening stroke to start a game."

According to Bompa (1994) "training is a systematic, progressive repetition process with the ultimate goal of improving sports performance". In this case, training is done repeatedly (without stopping), systematically (regularly), sequentially and with the addition of a load, so that performance can be improved. The effect of training given to athletes is largely determined by the regulation of training load. Safruddin (2011) states "training load regulation can be done by paying attention to the characteristics of the training load, namely: (1) intensity, (2) volume, (3) duration, and (4) frequency.

According to Cohen in Asma (2012) "defines cooperative learning as follows: Cooperative learning will be defined as students working together in a group small enough that everyone participates on a collective task that has been clearly assigned. Moreover, students are expected to carry out their task without direct and immediate supervision of the teacher Cooperative learning is basically the right learning for teachers or teachers, where in this learning a teacher will provide stimulation to students by trying to solve problems given by the teacher, so that indirectly students will compete in solving existing problems with their groups. The Komado method is a learning or training method that is characterized by the teacher or trainer making all decisions.

According to Jonath et al. in Soeparno (1992) stated that coordination is "cooperation between the central nervous system and the muscles used". The motor nerve system provides stimulation to muscle fibers so as to activate the muscle work needed for basic volleyball technique movements. Work that is arranged very finely and intricately and neatly between time with an optimal comparison between the spatial aspect (volleying/hitting the ball) and the temporal aspect (volleying/hitting the ball frequency) in fast motion.

RESEARCH METHODOLOGY

This type of research is a Quasi-experimental research, According to Arikunto (2006:207) Experimental research is a research that is intended to determine whether or not there is an effect of something imposed on the subject of the investigation. This research is included in experimental research with a quantitative descriptive approach. Descriptive research is research conducted to describe certain symptoms, phenomena or events. This research uses an experimental method with a 2x2 Factorial design , the selection of this method is adjusted to the expected data, namely the difference in research objectives to determine the effect of learning methods and motion coordination on the mastery of basic volleyball techniques of SMP Negeri 02 Rambah Samo students, a descriptive research type with a quantitative analysis approach is used.

The population in this study were all male students who participated in the volleyball extracurricular activities of SMP Negeri 02 Rambah Samo, with a total of 44 male students. For more details, see the table below:

Table 1. Population of Research on Extracurricular Activities of SMP Negeri 02 Rambah Samo

No	Class	Total
1	Class VII	18
2	Class VIII	12
3	Class IX	14
Total		44

The sample in this study was all students of SMP Negeri 02 Rambah Samo who participated in extracurricular volleyball activities, totaling 44 people.

RESULTS

So based on the above, it can be concluded that There is difference influence method cooperative learning and methods command to technique base volleyball . $f_{count} > f_{table}$, where $f_{count} = 4.16 > f_{table} = 4.08$, so H_0 is rejected . Then H_a is accepted which states there is interaction Cooperative learning method , command and coordination learning method motion to technique base volleyball $f_{count} > f_{table}$, where $f_{count} = 5.81 > f_{table} = 4.08$, H_0 is accepted which states No there is difference skills technique base volleyball which has coordination motion trained height with method cooperative learning and learning methods command This matter proven with $Q_{count} < Q_{table}$ ($Q_{count} = -0.529 < Q_{table} 2.933(0.05\alpha), 3.986 (0.01\alpha)$). there is difference technique base volleyball which has coordination motion trained height with method learning cooperative and learning methods command . This is

proven with $Q \text{ count} > Q \text{ table}$ ($Q \text{ count} = 6.304 > Q \text{ table } 2.933(0.05\alpha), 3.986(0.01\alpha)$). so H_0 is rejected and H_a is accepted

CONCLUSION

Based on findings research and discussion results study so can concluded as following:

1) There is difference results technique base volleyball owned by students extracurricular activities of SMP 02 Rambah Samo which are trained with use method learning cooperative and methods learning command with $F \text{ count result} = 4.16 > F \text{ table} = 4.08$; 2) There is interaction between method cooperative learning, command and coordination the movements possessed by the player volleyball to technique basis result of $f \text{ count} = 5.81 > f \text{ table} = 4.08$; 3) Students who have coordination motion tall will own technique base volleyball that No more Good If trained with learning methods cooperative than the command learning method with $Q \text{ count result} = -0.529 < Q \text{ table} = 2.933$ at 0.05α level or 3.986 at 0.01α level; 4) Players who have coordination motion low will own more techniques Good If trained with method learning cooperative than the method learning command with $Q \text{ count result} = 6.304 > Q \text{ table} = 2.933$ at 0.05α level or 3.986 at 0.01α level

Results in study This should published so that can make study for deep trainer practice athlete them . So that objective from exercise can achieved in a way maximum and time in do exercises can also be used in a way efficient , implementation method learning cooperative and learning methods coma in a way continuous For player volleyball can increase technique base a player volleyball . So that learning methods This can made into material in practice technique base volleyball .

For athletes / students who have coordination motion height , method command can made the best alternative in practice play volleyball , in particular technique base volleyball . While for athletes who have coordination motion low , for increase basic techniques play volleyball can done with implementation method learning cooperative. Furthermore results from study.

REFERENCES

- Arikunto, Suharsimi. (2006) Research Procedures, Jakarta, PT. Rineka Cipta
- Asma, et al. (2012). Cooperative Learning Model: UNP Press.
- Bompa, Tudor O. (1994). *Power Training for Sport. Canada; Mosaic Press*
- Erianti, (2004). *Volleyball Textbook. Padang: PT SukaBina Press.*
- Muhajir, (2004). Physical Education Theory and Practice for Senior High School Grade X Bandung: Erlangga.
- Munasifah, (2008) Jumping Athletics. Semarang. Various Sciences
- Soeparno, et al., (1992). Meat science and technology. 1st edition, Gajah Mada University Press Yogyakarta.
- Syafruddin. (2011). Sports Coaching Science. Padang: UNPPress.