

Analysis of the Effectiveness of the STAD Type Cooperative Learning Model in Improving Volleyball Learning Outcomes of Elementary School Students

Purnawan¹, Bukman Lian², Putri Cicilia Kristina²

¹SD Negeri 70 Palembang, South Sumatra, Indonesia, ²Universitas PGRI Palembang, South Sumatra, Indonesia

Corresponding author e-mail: purnawan.2022152070.students@univpgri-palembang.ac.id

Abstract: This study was conducted with the aim of determining the effectiveness of the STAD type cooperative learning model in improving volleyball learning outcomes of elementary school students. This research uses the research method of literature study. This type of research data collection is a literature review whose purpose is to find out how the STAD type cooperative learning model in improving volleyball learning outcomes of elementary school students. Data collection techniques are obtained from several relevant sources related to the research being researched. The relevant sources that have been collected are then compiled, analyzed, and concluded so as to conclude that the application of the STAD type cooperative learning model in learning activities can help students improve volleyball learning outcomes in elementary school students.

Keywords: Learning Outcomes, STAD Type Cooperative Learning Model, Volleyball.

A. Introduction

Education can be a process of humanizing humans, meaning creating a whole person who can develop from time to time, from not knowing something to being aware of development, because development is a cycle that cannot be separated from the whole person. Education in schools is a means of children's growth and development into adults who are intelligent, have noble morals and are useful for the nation and state.

Learning is a process that involves interaction between students and teachers or students with students where from these interactions students are expected to gain understanding and progress in learning outcomes about the teachings obtained in teaching and learning situations. In these learning activities are always related to several factors, one of which is another internal factor of the student.

Improving the quality of learning is one of the efforts to improve the quality of education, in addition to improving the quality of learning, the government also increases human resources (HR), one of which is physical education, sports and health (PJOK). PJOK is one of the compulsory subjects starting from the basic education level to the upper secondary level. The purpose of PJOK is to maintain and improve

physical fitness and health. Besides having a very large role in education, PJOK also emphasizes the development of individuals as a whole.

Primary school age is the age at which students crave very diverse nuances of movement. Through sports and health physical education (PJOK), students can learn the process of learning motion and learning through the widest possible movement. Physical education is an activity to improve physical fitness, movement skills and functional aspects which include cognitive, affective and psychomotor.

Motion learning in PJOK is a series of motion learning processes that are carried out in a planned and systematic manner to achieve learning objectives. Motion learning materials are various forms of movement skills, wrapped in the form of games and agility exercises. From the PJOK learning concepts that have been explained, the teacher as the manager of the learning process is expected to be able to provide a conducive learning environment, so that students can learn well. In addition to teaching, the teacher's task is to help students mature into mature, intelligent, and noble characters.

One of the problems faced in one of the elementary schools that researchers encountered, namely at SD Negeri 70 Palembang, was the low learning outcomes of students in carrying out the bottom passing movement on the volleyball game material. Researchers analyzed three aspects, namely cognitive, affective and psychomotor aspects. In observing cognitive aspects, the assessment process is carried out by providing several performance tasks. The assessment of affective aspects is carried out during the learning process, where what is observed is the behavior shown by students during the learning process, and assessment is carried out using affective assessment sheets. The aspects observed are an attitude of cooperation, responsibility, respect for friends, safety, confidence. As for the assessment of psychomotor aspects, it is carried out by giving a volleyball test (bottom passing). Where in this test what is observed is the technique of the initial attitude, the attitude of hitting the ball and the correct final stance in accordance with the guidelines. The level of completeness of students is guided by the minimum completeness criteria (KKM) for physical education, sports and health subjects, which is 75. In the assessment of psychomotor aspects, there are many movement errors in students, such as when the initial position of both arms is too high, when the attitude is imposed When receiving the ball both knees are not bent, both arms are not tight, and the ball is hit on the upper arm. From the results of daily scores, it can also be seen that the daily results of grade V students of SD Negeri 70 Palembang did not reach the results of KKM. This shows that the overall class on the lower passing material of volleyball cannot be said to be complete.

From the discussion above, it can be concluded that student learning outcomes are still low, so the use of learning models in the teaching and learning process of passing under volleyball is one way or approach that is expected to improve student learning

outcomes. However, in general, physical education teachers tend to be traditional or only use one learning model in carrying out teaching and learning activities at school, thus creating a learning atmosphere that is less interactive both between students and teachers and with fellow students. Learning tends to be monotonous and causes students to become bored in the classroom. This shows that the lack of use of other versions of the learning model causes the learning process activities to be carried out alone by the teacher which ultimately makes students feel bored in following learning, because it does not include student interaction in learning. The teaching and learning process activities are fully under the supervision of the teacher.

Based on some of the descriptions described above, the author feels the need to apply a learning model that involves students more in interacting and moving so as to improve the learning outcomes of passing under volleyball in elementary school students. One model that can be used is the STAD type cooperative learning model.

The learning model can be interpreted as a starting point or our view of the learning process, which refers to the view of the occurrence of that process, which is still very general, in which it adapts, inspires, strengthens and supports learning models with a certain theoretical scope. The application of the right learning model basically aims to create learning conditions that allow students to learn actively and enjoyably so that they can achieve optimal learning outcomes (Yurisma et al., 2022).

The cooperative learning model or often referred to as cooperative learning is a learning method that uses peer assistance in the learning process. Usually, teachers form small groups with 4 students with different abilities or in pairs. There are 5 types of Cooperative Learning Models, namely: Jigsaw type, STAD (Student Team Achievement Division) type, TGT (Team game Tournament) type, GI (Group Investigation) type, NHT (Number Head Together) type, and TPS (Think Pair Share) type.

The cooperative learning model is a learning model where students learn in small groups that have different levels of ability. In completing group tasks, each member works together and helps to understand a learning material. This model was developed based on the theory of constructive cooperative learning.

The STAD type cooperative learning model is a type of collaborative learning model that uses small groups with the number of members in each group consisting of 4-5 students heterogeneously which is a blend of achievement level, gender, social background, and ethnicity. The teacher introduces the lesson, then the students work in their group to ensure that all group members have mastered the lesson (Dokainubun, 2022).

Akhmad, (2020) suggests that there are three important concepts in STAD type cooperative learning, namely: 1. Group award, which will be given if the group reaches the specified criteria. 2. Individual responsibility, meaning that team success depends on individual learning from all team members. 3. Equal chance of success, meaning that all students contribute to their team by improving their performance from the previous one. This will ensure that high, medium and low achievers are all equally challenged to perform at their best, and that the contributions of all team members are of value. So, if students want to earn team awards, they must help their teammates master the material offered. The existence of competition in groups can also foster student learning motivation which can later affect learning outcomes. It is expected that the introduction of the STAD type cooperative learning model will increase student activity, because students in one group will try to make each group member master the material offered, so that student learning outcomes will increase. In the application of the STAD model, learning is not only focused on the teacher, but students also play an active role in the learning process.

Motor development is the process of growth and development of a child's motor skills. Motor comes from the word 'motor', which is the biological or mechanical basis that causes movement. Mautoric means everything related to gestures, which is based on three elements, namely; 1) Muscles, 2) Nerves, 3) Brain. The level of motor ability of students is influenced by the amount of movement experience that students have in the school environment or activities outside of school.

Sumantri (2015) suggests that learning is a group that contains several aspects. These aspects include: a) increasing the amount of knowledge, b) the ability to remember and produce, c) the use of knowledge, d). inferring meaning, e). interpreting and relating it to reality. Learning is a process by which an organism changes its behavior as a result of interaction between individuals and their environment, this behavior includes aspects of knowledge and attitudes, learning is a process of behavior change obtained through experience and practice (Evelin & Nara, 2015). Learning outcomes are any kind of procedures used to obtain information about a student's performance or how far a student can go toward a predefined learning goal.

Sumantri (2015), said that learning is a group in which several aspects are contained. These aspects include: a) increasing the amount of knowledge, b) the ability to remember and produce, c) the application of knowledge, d). inferring meaning, e). interpreting and relating to reality. Learning is a process by which an organism changes behavior as a result of interactions between individuals and the environment.

Learning outcomes are the results of evaluating student performance in attending physical education and sports lessons at school. During learning, students show their efforts and abilities both cognitively, affectively and psychomotorically. Kristina et al.

(2021) learning outcomes are broadly classified into three domains, namely the cognitive domain, the affective domain, and the psychomotor domain.

Volleyball is a game that uses the ball to be bounced or volleyed in the air back and forth over the net (net), with the intention of being able to drop the ball in a plot of the opponent's court area in order to find victory. Bounce the ball into the air can use all members or parts of the body from the toe to the head with perfect reflection.

According to Kharisma (2019) the game of volleyball is a sport played by two teams that aim to win the ball into the opponent's area using hands. Volleyball games consist of various techniques that can be mastered, one of which is the passing technique. Passing in a volleyball game is the effort of a volleyball player by using certain techniques to pass the ball played to his teammates. One of them is the bottom passing technique which is the earliest basic technique to master.

B. Methods

The research method used in this study is the literature study research method (Library Research). This study is aimed at the STAD type cooperative learning model related to student volleyball learning outcomes. According to Rosyidhana in (Rusmawan, 2019), literature study is a method of collecting data by searching and reading existing written sources, such as books or literature that explain the theoretical foundation. The same is the case with collecting data and information by extracting knowledge or knowledge from sources such as books, papers, articles and several other sources that have something to do with the object of research (Rusmawan, 2019). In this study, the author as a researcher uses article or journal data on Google Scholar.

Data analysis techniques used in this study use content analysis methods that can be used to obtain valid inferences and can be re-examined according to the context. In the analysis, selection, comparison, merging, and sorting will be carried out so that relevant ones are found (Hartanto & Dani, 2020). The relevant sources that have been collected are then compiled, analyzed, and concluded.

C. Results and Discussion

The purpose of this study was to determine the effectiveness of the STAD type cooperative learning model in improving volleyball learning outcomes of elementary school students. In this study, the author searched for journals relevant to the title of the research being researched by searching the literature through Google Scholar. This database was chosen to reflect various related studies. Search for articles published between January 2018 and January 2023 written in English or Indonesian. The words "STAD type cooperative learning model, volleyball learning outcomes" are used as keywords that appear in the title. Abstracts of all articles that have been excluded are

then read and assessed for their notability. Full articles are used as literature only if the inclusion criteria are met as follows: 1) The focus of the article relates to the effect of the STAD type cooperative learning model on student learning outcomes or variables related to the STAD type cooperative learning model. 2) The article presents original quantitative empirical data, not a summary or critique of previously reported data; and 3) Information that is displayed scientifically so that research methodology and results can be used. The initial search yielded 423 journals, with 276 remaining after specifications were made on the volleyball bottom passing sub-material. Of these, 34 were identified based on abstracts that potentially met the criteria. After evaluating the full text, 10 of them are retained for final data.

Empirical studies that have been conducted by several previous researchers on the STAD type cooperative method in improving volleyball learning outcomes of elementary school students, namely Suasa (2021) in his research on the implementation of the STAD type cooperative learning model to improve learning achievement of basic motion passing under the voly ball in grade V elementary school students show that Learning achievement between cycle I (number 593, average 74, absorption 74%, learning completeness 50%) and cycle II (number 687, average 86, absorption 86%, learning completeness 88%), p The increase in learning achievement from cycle I to cycle II can be seen from the average increase in absorption capacity of 12% and in learning completeness increased by 38%.

Muni (2021) in his research entitled efforts to improve the learning outcomes of passing under the voly ball based on the student type of the achievement division team SDN 05 North Pontianak, learning outcomes in the precycle there were 28 (87.50%) students who were incomplete and 4 (12.50%) students who completed, in cycle I there were 15 (50%) students who have not achieved a completeness score because they get a score below 75 and 15 (50%) other students are declared complete after getting a score above 75, in cycle II there are 4 (12.50%) students who have not reached the completeness score because they get a score below 75 and 28 (87.50%) other students are declared complete after getting a score above 75. There was an increase in student learning completeness from precycle to cycle II by 75%.

Randi Eka Putra et al (2018) in their research on improving the learning process of students in physical education subjects with mini volleyball bottom passing material through stad model cooperative learning in grade V students of SD Negeri 168/II Sumber Mulya Bungo Regency, judging from the learning outcomes obtained from 26 students in the pre-cycle of only 26.92% were completed, in the first cycle the learning completeness score obtained was 57.69%. While in the second cycle the learning completeness value obtained has reached 84.62%, with the application of the STAD model there was an increase of 57.70%.

Agustin (2018) in his research on the application of the student teams achievement divisions (STAD) model to improve volleyball bottom passing learning outcomes in grade V students of SD Negeri Purwotomo 97 Surakarta showed that in the precycle the learning outcomes of passing under volleyball games the number of completed was 10 students (43.48%) and those who had not completed were 13 students (56.52%), In cycle I the results of learning passing under the volleyball game the number of completed was 16 students (69.56%) and those who were not completed were 7 students (30.44%), while in cycle II the results of learning passing under the volleyball game the number of completed was 20 students (86.96%), an increase of 43.48%.

Kertya (2022) in his research entitled *The Impact of the Implementation of the STAD Type Cooperative Learning Model: Improving Learning Outcomes for Elementary School Student Assessments*, shows that learning outcomes between precycle (number 1350, average 59, absorption 59%, learning completeness 13%), cycle I (number 1567, average 68, absorption 68%, learning completeness 48%) and cycle II (number 1942, average 84, absorption 84%, learning completeness 96%). There was an increase in learning outcomes between cycle I and cycle II, showing an average increase in absorption of 16% and in learning completeness an increase of 48%.

Tanaya (2023) stated in his research entitled *STAD Type Cooperative Learning Model to Improve Learning Outcomes for Grade VI Elementary School Students* increased learning outcomes between cycle I (number of 1467, average of 73, absorption of 73%, learning completeness of 60%) and cycle II (number of 1617, average of 81, absorption of 81%, learning completeness of 100%). There was an increase in learning outcomes between cycle I and cycle II, showing an average increase in absorption by 8% and in learning completeness increased by 40%.

Tuttaufiqah (2020) in her research entitled *Implementation of Student Teams Achievement Divisions (STAD) Learning Strategy to Improve Cooperation and Learning Outcomes of Volleyball Bottom Passing in Class V Students of SDN Joresan Mlarak Ponorogo* her research shows learning outcomes with a percentage of cycle I of 63%, cycle II with a percentage of 89% and cycle III a percentage of 100%. Increased learning outcomes obtained by 37%.

Ernita (2021) in her research on improving the learning outcomes of passing under volleyball type student team achievement division V SD Negeri 18 West Pontianak cycle I the percentage of completeness of students, which is 16 students or 59% of 27 people. As for the percentage of incompleteness there are 10, namely 41% of students from 27 people, cycle II the percentage of completeness of students is only 25 people with a percentage of 92% of students from 27 people. As for the percentage of incomplete, there are 2 students with 8% of 27 students. Improved learning outcomes by 33%.

Artha, et al. (2023) in his research entitled Implementation of the Type Cooperative Learning Model (STAD) Based on Tat Twam Asi to Improve Volleyball Passing Activities and Learning Outcomes The results showed that in the first cycle the average student learning activity was 7.81 with the active category and student learning outcomes with classical completeness of 79.41% with a good category. While in cycle II, the average student learning activity is 8.47 active categories and student learning outcomes with classical completeness of 100% categories are very good. There was an increase of 20.59%.

Paryanto, (2020) in his book on the Implementation of the STAD Type Cooperative Learning Model (Student Teams Achievement Division) for Passing Lessons in Volleyball Games shows the conclusion of improved learning outcomes at the first meeting with the initial condition of learning was 11.11% to 44.44%. At the second meeting it increased from 44.44% to 74.03%. At the third meeting, the results increased from 74.03% to 81.48%. So that the total increase from initial to final results is 70.37%.

D. Conclusion

Based on the results of data analysis, it shows that with the application of the STAD type cooperative learning model can improve student learning outcomes where in each study student learning outcomes seem to increase. The average increase was 46.31%. From these results, it can be concluded that the STAD type cooperative learning model is effective in improving volleyball bottom passing learning outcomes in elementary school students.

References

- Agustin, A. (2018). *Implementation of the Student Teams Achievement Divisions (STAD) Model to Improve Learning Outcomes of Passing Under Volleyball for Class V Students at SD Negeri Purwotomo 97 Surakarta Academic Year 2017/2018*. UNS-FKIP Jur. PENJASKES-K4613011
- Akhmad, F. (2020). Application of the Student Teams Achievement Division (STAD) Cooperative Learning Model to Improve Student Learning Outcomes in Light Vehicle Engine Maintenance Subjects. *Jurnal Pendidikan Vokasi Otomotif*, 2(2).
- Artha, I. K. A., Andika, I. P. H. W., Anderzen, K. A., & Kusuma, K. H. W. (2023). Implementation of the Cooperative Type Learning Model (STAD) Based on Tat Twam Asi to Improve Volleyball Passing Learning Activities and Results. *Prabha Vidya*, 3(1), 52-61. Retrieved from <https://www.jurnal.stkipahsingaraja.ac.id/index.php/prabavidya/article/view/450>
- Dokainubun, P. (2022). Cooperative Learning Model on Lower Passing Ability in Volleyball Games for Class VII Students of YAPIS Middle School, Timika

- Branch. SATRIA: *Journal of Sports Athleticism in Teaching and Recreation on Interdisciplinary Analysis*, 5(1), 23-31.
- Ernita, S. (2021). Improved Volleyball Bottom Passing Learning Outcomes for Student Type Team Achievement Division V SD Negeri 18 West Pontianak. *Jurnal Locomotor*, 2(2). Retrieved from <https://locomotor.untan.ac.id/index.php/fe/article/view/19>
- Eveline., & Nara, H. (2015). Learning and learning theory. Bogor: Ghalia Indonesia.
- Hartanto, R. S., & Dani, H. (2020). Literature Study: Development of Learning Media Using Autocad Software. *Jurnal Kajian Pendidikan Teknik Bangunan*, 6(1).
- Kertya, I. G. (2022). Impact of Implementing the STAD Type Cooperative Learning Model: Improving Physical Education Learning Outcomes for Elementary School Students. *Journal of Education Action Research*, 6(3), 410-416. <https://doi.org/10.23887/jear.v6i3.45856>
- Kharisma, Y. (2019). *Learn, Play, and Train Volleyball*. Indramayu: STKIP Nahdlatul Ulama Indramayu.
- Kristina, P. C., Kurnia M., Nita, P., Hidayad, F. Pasaribu, A. M. N., & Sari, Z. N. (2021). The Influence of Teaching Style and Motor Ability on the Bottom Passing Learning Outcomes in the Volleyball. *Kinestetik: Jurnal Ilmiah Pendidikan Jasmani*, 5(2), 234-244. <https://doi.org/10.33369/jk.v5i2.16160>
- Muni. (2021). Efforts to Improve Learning Results for Passing Under Volleyball Based on Student Team Achievement Division SDN 05 North Pontianak. *Jurnal Locomotor*, 1(2). Retrieved from <http://locomotor.untan.ac.id/index.php/fe/article/view/9>
- Paryanto. (2020). *Implementation of the Stad Type Cooperative Learning Model (Student Teams Achievement Division) for Passing Lessons in Volleyball Games*. Kota Malang: Ahlimedia Press.
- Putra, R. E., Putra, A. M., & Emisnawati, E. (2018). Improving the Student Learning Process in Physical Education Subjects with Mini Volleyball Bottom Passing Material Through Stad Model Cooperative Learning for Class V Students at SD Negeri 168/II Sumber Mulya, Bungo Regency. *Jurnal Muara Olahraga*, 1(1), 87-97.
- Rusmawan, U. (2019). *Final Project and Programming Thesis Writing Techniques*. Jakarta: Elex Media Komputindo.
- Suasa, K. (2021). Implementation of the STAD Type Cooperative Learning Model to Improve Learning Achievement of Basic Volleyball Under Passing Movements in Class V Elementary School Students. *Journal of Education Action Research*, 5(4), 548-553. <https://doi.org/10.23887/jear.v5i4.39477>
- Sumantri, M. S. (2015). *Learning Strategies, Theory and Practice at Basic Education Level*. Jakarta: Rajawali Press.
- Tanaya, K. (2023). STAD Type Cooperative Learning Model to Improve Physical Education Learning Outcomes for Class VI Elementary School Students. *Journal of Education Action Research*, 7(1), 8-14. <https://doi.org/10.23887/jear.v7i1.52120>

- Tuttaufiqah, I. (2020) *Implementation of the Student Teams Achievement Divisions (STAD) Learning Strategy to Improve Collaboration and Volleyball Bottom Passing Learning Outcomes for Class V Students at SDN Joresan Mlarak Ponorogo 2019/2020 Academic Year*. Undergraduate (S1) thesis, IAIN Ponorogo.
- Yurisma, I. O., Lian, B., & Kurniawan, C. (2022). The influence of the Student Team Achievement Divisions (STAD) learning model on student learning outcomes. *Jurnal Basicedu*, 6(1), 591-601