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## Efforts to Improve Bottom-Passing Learning Outcomes Through the Crab Walk Playing Approach in the Mini Volleyball Game for Class VI Students at SDN 103 Inpres Hasanuddin

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### ABSTRACT

The purpose of the study was to determine the improvement of learning outcomes of mini volleyball lower passing through the crab road playing approach in students of SDN 103 Inpres Hasanuddin, Maros Regency. This research is a class action research using several cycles (pre-cycle, cycle I, and cycle II) to see the improvement of students after being given the crab road game. The results showed that in the pre-cycle activities, the number of students who completed the learning was 2 students and 25 students who did not complete the learning, or 7.40% of students completed and 92.60% of students did not complete the learning. In cycle I the number of students who completed learning was 13 students and 14 students were not complete or as many as 42% of students were complete and 58% of students were not complete, while in cycle II there was a significant increase in student learning completeness to 27 complete students or 100%. The conclusion is that the crab road game can improve the learning outcomes of mini volleyball lower passes in SDN 103 Inpres Hasanuddin Maros Regency students.

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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;
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## INTRODUCTION

The Law of the Republic of Indonesia on the National Education System and the Government Regulation on National Education Standards, are expected to provide



opportunities to perfect a comprehensive curriculum (broad and complete) to achieve national education goals. The Ministry of National Education in 2013 that "Physical education is an educational process that utilizes systematically planned physical activities aimed at improving individuals organically, neuromuscularly, perceptually, cognitively and emotionally within the framework of the national education system".

Classroom Action Research (PTK) is one of the studies that is an effort to observe and collect information in learning activities, through an action (treatment) deliberately raised by the teacher as self-reflection to improve and improve student learning outcomes in a positive direction. Carried out to improve the quality of actions in the classroom consisting of several cycles and stages carried out by teachers or researchers (Neliwati, 2018). Overall, classroom action research in elementary schools is a valuable tool for teachers to improve their teaching, understand their students, and contribute to the improvement of education at the elementary level. With this method, teachers can continuously evaluate and develop their teaching practices, creating a better learning experience for their students (Suwignyo & Utomo, 2021).

Classroom Action Research is also required by a teacher related to functional positions, by the Regulation of the State Minister of State Apparatus Empowerment and Bureaucratic Reform (Ministerial Regulation of PAN and RB) Number 16 of 2009 concerning teacher functional positions and credit scores. Where the purpose of this regulation is an effort to improve or improve the quality of learning through research, such as teachers studying how students learn about the way teachers teach, and developing learning models so that teachers can correct deficiencies in teaching to have an impact on improving the student learning process.

The essence of play is a physical activity that is carried out earnestly, voluntarily, and enjoyably. As stated by Sukintaka (1998), play is a physical activity that is carried out involuntarily and earnestly to get a sense of pleasure from the activity. The Play approach is a way of learning which in its implementation is carried out in the form of playing or games. According to Wahjoedi (1999), Approach Play is "learning given in the form or situation of a game". One of the efforts to improve or make children enthusiastic about participating in Physical Education, Health and Recreation learning is to invite them to play. Role-playing is a play activity that explores relationships between humans by demonstrating an object or animal (Suwignyo & Utomo, 2021).

The game in question is the crab road. "crab-walking game" is a concept used in game theory to describe a situation in which two or more players or participants in a game move or act inefficiently or indirectly, resulting in suboptimal outcomes for all parties involved. The term "crab walk" is used to describe the movement of crabs that often move transversely or sideways rather than forward.

In the context of game theory, the crab ramp is used to illustrate a situation in which the players in a game are not trying to achieve optimal results or are not moving toward their intended goal. Instead, they may get stuck in inefficient behaviour patterns or not collaborate with other players, which can ultimately hinder achieving better results for everyone. This concept suggests that in some situations, players may be better off cooperating or following a more efficient strategy than moving in the opposite or inefficient direction. The application of game theory such as the way of the crab can help players or decision-makers to better understand the consequences of their behavior and encourage them to seek more efficient and profitable solutions for all parties involved.

Volleyball is a sport that is included in teaching materials in elementary schools. In addition to being a fun sport, volleyball also has physical and mental health

benefits. However, in schools, the implementation of volleyball material teaching often faces various challenges. Some problems that often arise in the process of learning volleyball in schools include Limited facilities many schools, especially in rural areas, may not have adequate facilities to hold volleyball lessons, such as volleyball courts and nets. A volleyball game is a game played by two squads of six people each, the main objective in this game is to hit the ball into the opponent's field so that the opponent cannot return the ball (Mustafa, 2017).

Technique is a process of movement and proof in practice as best as possible to complete a definite task in the sport. In enhancing volleyball achievements, this technique is closely related to movement ability, physical condition, tactics, and mental (Achmad et al., 2019). Mastery of basic volleyball techniques consists of, among others: serve, passing, smash and block, of the various basic techniques that cannot be ignored are bottom passing and top passing. By making good passing in a game, the expected defensive and attacking strategies can be done as well as possible (Astuti, 2017). The goal of a volleyball game is to pass the ball over the net to touch the floor of the opponent's court and to prevent the same effort from the opponent. Each team can play three rebounds to return the ball (outside of blocks) (H. Iskandar & Wirno, 2021).

Bottom passing is a technique that needs to be learned by a beginner such as an elementary school-age child. Besides being considered easier, it is also more often used to receive the ball from opponents (B. A. R. Kusuma et al., 2023). Bottom passing is a way of playing the ball that comes lower than the shoulder by using both wrists pressed together. This passing is usually used to play balls that come both from opponents and from teammates, which have difficult characteristics; For example, a low, fast, hard ball or one that comes suddenly, but can still be reached by both hands. Sometimes also bottom passing is used to play the ball emphasizing accuracy such as passing and passing (L. S. W. Kusuma, 2018).

Lack of knowledge of teachers about students' physique in elementary school Sports coaches who teach volleyball may not have enough knowledge and skills to provide effective lessons. The lack of equipment, namely the limited volleyball equipment, such as quality balls and nets, can be an obstacle in the learning process. Student motivation is that not all students have the same interest in volleyball, and this can affect their level of motivation in learning. Different skill levels of students in volleyball classes, there are students with different skill levels, from beginners to advanced. This can be challenging for teachers in planning lessons that work for all students.

Through Penjasorkes learning in this form of play, it is hoped that students can actively participate which in the end they have a meaningful, interesting, and fun learning experience, while the teacher acts as a facilitator and motivator. Based on the observations made by researchers in the field, it shows that the implementation of teaching penjas shows that there are still many students who are incomplete in playing volleyball, specifically the bottom passing material. The score obtained by students so far is less than 75 as the minimum completeness criteria threshold (KKM) determined by the school. In the process of teaching and learning the material passing down, the teacher still uses the lecture method without paying attention to the physical condition of the students. So during the lower passing, the student still lacks power in the arm so the lower pass is still not good and does not even reach the net that has been set in the mini-volleyball game. During the process, the pupil looks uncomfortable when the ball comes into contact with the hand, meaning that the strength of the hand hit by the ball is still weak and needs

to increase strength. The hit of the ball also always points in the other direction not straight forward so it is assumed that both hands do not simultaneously hit the ball, meaning that both hands do not have the same strength in hitting the ball.

## METHODS

Classroom Action Research (Janah, 2018). PTK is a form of self-reflection activity carried out by educational actors in a situation of rationality and justice about their educational practices and understanding of the practices carried out and situations where these practices can be carried out (Burhanuddin, 2020). The subjects of this study consisted of 27 grade VI students of SDN 103 Inpres Hasanuddin Maros Regency. The object of this research is the lower passing material in the subjects of physical education, sports and health at SDN 103 Inpres Hasanuddin Maros Regency.

The data that has been collected in observation activities in each cycle, is analyzed descriptively with statistical calculations to see the percentage of development that occurs as a whole.

The success indicators in the assessment of student learning outcomes based on the national standard KKM 75 are presented in a table as follows:

**Table 1.**

Student Learning Outcomes Completeness Indicators

No	Range of Values	Criterion	Information
1	> 95 – 100	Excellent	Complete
2	> 85 – 94	Good	Complete
3	> 75 – 84	Enough	Complete
4	< 75	Less	Incomplete

## RESULTS AND DISCUSSION

Before carrying out the research process, researchers together with teachers held Preliminary Observations to determine the situation and condition of students and classes regarding the material of students' lower passing ability in grade VI students of SDN 103 Inpres Hasanuddin Maros Regency along with assessment instruments based on the 2013 curriculum. Before being given actions that will be used as an initial reference at the time of research. The pre-cycle conditions of grade VI students of SDN 103 Inpres Hasanuddin Maros Regency before being given a game approach action on Assessment, Spiritual, Affective, Cognitive and Psychomotor are as follows:

**Table 2.**

Criteria for completion of student learning success in the Spiritual Assessment.

Range of Values	Category	Frequency	Percentage (%)
85-100	Very Good	27	100%
75-84	Good	0	0%
60-74	Enough	0	0%
40-59	Less	0	0%
0-39	Less Than Once	0	0%
<b>Total</b>		<b>27</b>	<b>100%</b>

**Table 3.**

Criteria for completeness of student learning success in Affective Assessment

Range of Values	Category	Frequency	Percentage (%)
85-100	Very Good	27	100%
75-84	Good	0	0%
60-74	Enough	0	0%
40-59	Less	0	0%
0-39	Less Than Once	0	0%
<b>Total</b>		<b>27</b>	<b>100%</b>

**Table 4.**

Criteria for completeness of student learning success in Cognitive Assessment.

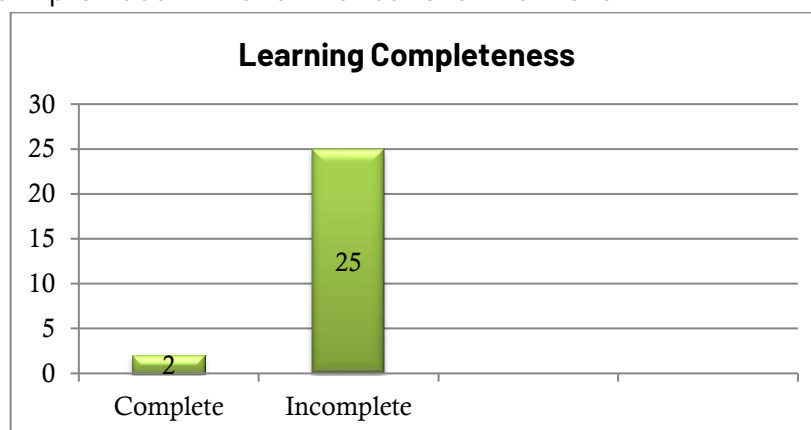
Range of Values	Category	Frequency	Percentage (%)
85-100	Very Good	27	100%
75-84	Good	0	0%
60-74	Enough	0	0%
40-59	Less	0	0%
0-39	Less Than Once	0	0%
<b>Total</b>		<b>27</b>	<b>100%</b>

**Table 5.**

Criteria for completeness of student learning success.

Range of Values	Category	Frequency	Percentage (%)
85-100	Very Good	0	0%
75-84	Good	2	7%
60-74	Enough	0	0%
40-59	Less	14	52%
0-39	Less Than Once	11	31%
<b>Total</b>		<b>27</b>	<b>100%</b>

To clarify the presentation of data on the results of the completeness criteria for the learning outcomes of Class VI students of SDN 103 Inpres Hasanuddin Maros Regency, data is provided in the form of bar charts as follows:



**Figure 1.**

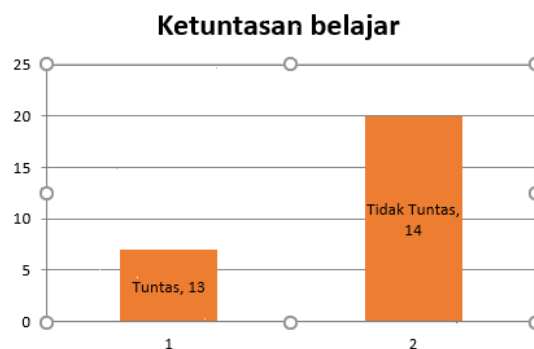
Pre-Cycle Learning Completeness Bar Chart

Furthermore, the steps for cycle 1 in this study will be described in the form of a table of obtaining value results and a bar chart as follows:

**Table 6.**  
 Criteria for Completeness of Student Learning Success in Cycle I.

Range of Values	Category	Frequency	Percentage (%)
85-100	Very Good	0	0%
75-84	Good	13	48,14%
60-74	Enough	14	51,86%
40-59	Less	0	0%
0-39	Less Than Once	0	0%
<b>Total</b>		<b>27</b>	<b>100%</b>

The completeness in the first cycle can also be seen in the bar chart which will be presented between the number of completed and incomplete students in the following chart:



**Figure 2.**  
 Learning Completeness Bar Chart Cycle 1

**Table 7.**  
 Criteria for Completeness of Student Learning Success in Cycle II.

Range of Values	Category	Frequency	Percentage (%)
85-100	Very Good	8	29,62%
75-84	Good	19	70,38%
60-74	Enough	0	0%
40-59	Less	0	0%
0-39	Less Than Once	0	0%
<b>Total</b>		<b>27</b>	<b>100%</b>

The completeness in cycle II can also be seen in the bar chart which will be presented between the number of completed and incomplete students in the following chart:



**Figure 3.**  
 Cycle II Learning Completeness Bar Diagram

Judging from the value, there was an increase from precycle to cycle I to cycle II, with an increase in value of 31.48 in cycle I from precycle value and a 20.74 increase in cycle I to cycle II. With a total increase of 52.22 from the value of learning outcomes from precycle to cycle II. The completeness of learning outcomes in cycles I and II can also be seen in the bar chart that will be presented between the number of completed and incomplete students in the following chart:



## DISCUSSION

### Pre Cycle

Student learning outcomes in the precycle obtained spiritual, affective, and cognitive assessment results did not show students with incomplete learning categories so in this study no approach was given for the three aspects of assessment by the 2013 curriculum assessment. Therefore, the theory that PTK can be started by conducting a SWOT analysis, which is done by analyzing the strengths (S = Strength) and weaknesses (W = Weaknesses) owned, and external factors (from outside), namely opportunities or opportunities that can be achieved (O = Opportunity), and threats (T = Treath)(Yulianto, 2013). These four things can be viewed from the point of view of the teacher who implements them and the student who is subjected to action. So if the student has completed the aspect of spiritual assessment, then the approach given no longer refers to the process approach of increasing spiritual value, as well as other assessments such as affective and cognitive.

"As for the opinion about the factors that affect the learning process and outcomes, students have certain characteristics, both physiological and psychological. Physiology is how the physical condition, five senses, and so on. What concerns psychology is: his interests, level of intelligence, talents, motivation, cognitive abilities, and so on. All of this can affect how the learning process and outcomes"(Purwanto 2017: 107). The results of this value are obtained from the results of the assessment of the lower passing (psychomotor) movement skills test with a passing height test that must be achieved, which is 2 meters with the conclusion that grade VI students of SDN 103 Inpres Hasanuddin Maros Regency have not completed the lower passing material for it needs improvement to improve the learning outcomes.

### Cycle I

The results of the Bottom Passing Assessment of the Mini Volleyball Game of SDN 127 Maros Regency obtained data on 13 incomplete students and 14 students who



completed attending physical education, sports and health lessons for lower passing material in mini volleyball games. The value is obtained from the accumulation of cognitive and psychomotor assessments provided that the average score for each student exceeds or is equal to the KKM 75 score determined by the school. The average bottom passing score for class VI bottom passing material was 62.59. There is an increase in student learning outcomes on the bottom passing material both in terms of cognitive and psychomotor because students are used to swinging their hands simultaneously and can understand the problem to find out their knowledgeability in passing. Knowledge of the motion in passing below can be implemented in a correct movement. A total of 13 disciples are already good at making bottom-passing movements. This means that it can meet the minimum completeness criteria, then from the assessment of psychomotor learning outcomes, the increase in learning outcomes reaches the limit of minimum completeness criteria due to the game carried out, namely the crab road. The crab walk is done by making movements to form a box to make the hand muscles stronger.

The crab walking game, allows students to master the mini volleyball bottom serve technique well because the forms of the crab walk game are very similar to the volleyball bottom serve technique. This learning process is to provide a sense of fun, confidence, and courage and compete in the mastery of the lower serve and for students to familiarize themselves with the ball and the field of play. However, in the first cycle, there were still some students who had not completed as many as 14 students due to several factors including there were still students who were not serious about following lessons and external factors such as toy sellers selling in the school area which resulted in students not focusing. But in terms of movement skills, they have already met the assessment criteria.

With a game that focuses on hand muscle strength, it can make students feel accustomed to swinging their hands simultaneously and can place the fall or impact of the ball right on the upper wrist so that it does not cause pain and can provide a stronger push.

## **Cycle II**

The results of the passing assessment under the mini volleyball game of grade VI students of SDN 103 Inpres Hasanuddin Maros Regency obtained data as many as 27 students or 100% of students completed attending physical education, sports and health lessons for the bottom passing material in the mini volleyball game. The value is obtained from the accumulation of cognitive and psychomotor assessments provided that the average score for each student exceeds or is equal to the KKM 75 score determined by the school. The average bottom passing score for class VI lower passing material was 83.33. The acquisition of this value is because the child is accustomed to swinging his hands simultaneously like we do crab walking, open and parallel hand movements next to the body resemble the position of the hands when going to pass down, so they can use both hands with the right arm when swinging their hands and swing simultaneously



between the left and right hands, so that the direction of the ball can be controlled properly according to the desired direction and can Crossing the predetermined net. There is no longer a movement of one hand too quickly swung so that the direction of the ball becomes tilted not straight ahead.

Hand swings are also becoming stronger by the habit of crab walking games, making learning outcomes in cycle II make learning outcomes increase to a maximum of 100% and meet the limits of learning completeness criteria and class completeness criteria with learning completeness criteria exceeding 85% of students complete in class. In cycle II all criteria have been achieved so that this research is said to be successful in improving learning outcomes or by what is desired by researchers. The crab road game is suitable to improve the learning outcomes of passing down in physical education, sports, and health subjects at SDN 103 Inpres Hasanuddin Maros Regency which is carried out in 3 stages, namely Precycle, Cycle I, and Cycle II. The improvement was seen in the scores obtained by each student on the material of the mini-volleyball game.

## CONCLUSION

Based on the results of research conducted starting from the precycle, Cycle I and Cycle, it can be concluded that there is an increase in the value of learning outcomes of grade VI students of SDN 103 Inpres Hasanuddin Maros Regency by approaching the crab road game. The value obtained in the precycle amounted to 31.11. Cycle I amounted to 62.59. Cycle II amounted to 83.33. With an average increase in cycle I to cycle II of 31.48. With a total increase of 52.22 from the value of learning outcomes from the recycle.

Based on the results of the study, can be suggested for several things as follows: 1) The results of this study should contribute information to the school to improve learning outcomes, especially lower passing material in physical education, sports, and health subjects; 2) By applying a game approach with this material can improve and improve student learning outcomes so that they can motivate and avoid boredom during the learning process and can meet the learning completeness criteria determined by the school; 3) Provide adequate facilities and infrastructure to be able to improve student learning outcomes, especially students in grade VI who will complete their education in elementary school; 4) Make crab walking games as an alternative exercise as a reinforcement of students' arm muscles to have better bottom passing ability; and 5) For future research to provide new variations in the approach to the game that resemble bottom passing movements.

## REFERENCES

- Achmad, I. Z., Aminudin, R., Sumarsono, R. N., & Mahardika, B. (2019). Tingkat Ketrampilan Teknik Dasar Permainan Bola Voli Mahasiswa PJKR Semester II Di Universitas Singaperbangsa Karawang Tahun Ajaran 2018/2019 Irfan Zinat Achmad, Rizki Aminudin, Rhama Nurwasyah Sumarsono, Dhika Bayu Mahardika. Jurnal Ilmiah PENJAS, 5(2), 48-60.

- Astuti, Y. (2017). Pengaruh Metode Drill dan Metode Bermain Terhadap Keterampilan Bermain Bola Voli Mini (Studi Eksperimen Pada Siswa SD Negeri 14 Kampung Jambak Kecamatan Koto Tengah Kota Padang). *Al Ibtida: Jurnal Pendidikan Guru MI*, 4(1), 01. <https://doi.org/10.24235/al.ibtida.snj.v4i1.1276>
- Burhanuddin, S. (2020). Penelitian Tindakan Kelas dalam Bidang Pendidikan Jasmani, Olahraga dan Kesehatan. In H. Upu (Ed.), Suparyanto dan Rosad (2015 (Pertama, Vol. 5, Issue 3). 2020 Global Research and Consulting Institute (Global-RCI).
- Iskandar, H., & Wirno, M. (2021). Pengaruh latihan dumbbell terhadap kemampuan servis atas dalam permainan bola voli pada siswa smp negeri 2 tomini. *Tadulako journal sport sciences and physical education*, 0383, 63–69.
- Janah, N. F. (2018). Upaya Meningkatkan Pembelajaran Passing Bawah Bola Voli Melalui Metode Pembelajaran Kooperatif Pada Siswa Kelas V Sd Seropan Dlingo Bantul. UNY Press, 1.
- Kusuma, B. A. R., Indahwati, N., & Widiyanti, N. P. (2023). Upaya Peningkatan Hasil Belajar Passing Bawah Permainan Bolavoli dengan menggunakan Metode Drill dalam Proses Pembelajaran pada Siswa Kelas IV A SDN Gayungan II/423 Kota Surabaya. *Jurnal Mahasiswa Pendidikan Olahraga*, 4(3), 144–153.
- Kusuma, L. S. W. (2018). Pengaruh Latihan Knee Tuck Jump Terhadap Kemampuan Smash Dalam Permainan Bola Voli Pada Ukm Ikip Mataram. *Jurnal Ilmiah Mandala Education*, 4(3), 1–13. <https://doi.org/doi.org/10.58258/jime.v4i1.546>.
- Mustafa, R. I. (2017). Pengaruh Latihan Pull Up Terhadap Ketepatan Servis Atas Dalam Permainan Bola Voli (Study Eksperimen Pada Siswa Ekstrakurikuler Bola Voli SMPN 6 Gorontalo).
- Neliwati. (2018). Metodologi Penelitian Kuantitatif (Kajian Teori Dan Praktek). In O. K. Banurea (Ed.), CV. Widya Puspita (Pertama, Issue 57). CV. Widya Puspita, Medan.
- Purwanto. 2017. Evaluasi Hasil Belajar. Yogyakarta: Pustaka Pelajar.
- Sukintaka, (1998). "Teori Bermain Untuk D2 PGSD Penjaskes". Jakarta : Depdikbud Dirjen Dikti PPTK.
- Suwignyo, H., & Utomo, A. W. B. (2021). Pendekatan model role play dalam upaya meningkatkan hasil belajar teknik passing sepak bola. *Altius: Jurnal Ilmu Olahraga Dan Kesehatan*, 10(1), 66–77. <https://doi.org/10.36706/altius.v10i1.14135>.
- Wahjoedi. (1999). Pengertian Pendekatan Bermain. Internet [http://www.AsianBrain.com/index.php?aff\\_code=487381](http://www.AsianBrain.com/index.php?aff_code=487381). Diakses Jum'at 26 Januari 2024
- Yulianto, B. (2013). Modul PLPG (pp. 223–249). Tim Instruktur Bahasa Indonesia Penyunting.