

Available online at: <http://journal.unj.ac.id/unj/index.php/gjik>
Gladi: Jurnal Ilmu Keolahragaan, 17 (01) 2026, 29-36
Permanent Link/DOI: <https://doi.org/10.21009/GJIK.171.03>

MODIFICATION OF PLASTIC BALL LEARNING MEDIA TO IMPROVE LEARNING OUTCOMES OF KASTI BALL

Dery Dwi Kurniawan¹, Topo Yono², Muh Saleh Nurhasyim³

¹²³Physical Education, Faculty of Teacher Training and Education, Muhammadiyah University of Jember. JL. Karimata No. 49 Sumbersari Jember 68124

Corresponding author. Email : derydwi19@gmail.com¹, topoyono@unmuhjember.ac.id²

(Submission Track: Received: 26-03-2025, Final Revision: 04-09-2025, Available Online: 13-01-2026)

Abstract. The problem that is always faced by teachers during learning is that students' baseballs when playing are replaced with plastic balls from the existing problem, the researcher uses a solution to improve learning outcomes from baseball games with plastic balls instead of real balls. The form of research used is classroom action research. The subjects in this study were teachers collaborating with 26 students of class X of BUSTANUL ULUM Vocational High School. Based on the results of the research carried out, the research had a positive impact on students because it consisted of cycle I and cycle II in the form of planning, implementation, observation and reflection. Learning cycle I, students who had just graduated were 18 students or 69% while students who had not graduated were 9 students or 31%, then continued to cycle II so that students had the opportunity to improve the original ball was replaced with a plastic ball, finally students were able to play baseball, all students graduated from 26 students and students who had not graduated or completed none. Kata

Keywords: Modification; Plastic Balls; Baseball; Bustanul Physical



INTRODUCTION

The dependence of physical education teachers on standard facilities is often an obstacle in the learning process, especially if the number of equipment available at school is not comparable to the number of students. In addition, limitations in physical structure, body condition, and physical abilities of elementary school students make them less ready to participate in activities that refer to equipment and field standards. The weight of the sports equipment used can also hinder the mastery of basic skills in the game, including in the game of rounders (Sahabuddin 2022).

Along with the increasing intensity of the implementation of education, a lifelong coaching process, the role of Physical Education becomes very crucial. Physical Education provides students with the opportunity to directly experience various learning activities through structured physical activities, games, and sports (Fatoni 2021). This approach not only supports the development of motor skills and physical abilities, but also strengthens knowledge, reasoning, and appreciation of values such as mental, emotional, spiritual, and social attitudes. In addition, through this activity, students are accustomed to a healthy lifestyle that is essential to support balanced growth and development. Through Physical Education learning, students will gain experiences that are closely related to pleasant personal impressions, various creative and innovative expressions, movement skills, physical fitness, healthy lifestyles, knowledge and understanding of human movement, and will also form a positive personality (Lailatul 2015).

Physical Education emphasizes the holistic aspects of education (health, physical fitness, critical thinking skills, emotional stability, social skills, reasoning and moral action), which are the goals of education in general (Saitya 2022) . Or specifically through physical education learning, students carry out activities in the form of games, and exercise (adapted to the growth and development of children). It is undeniable that it is possible that some elementary schools only have land for physical education activities in the form of a yard for ceremonies.

The dependence of physical education teachers on standard facilities often hinders physical education learning activities (Darmawan 2018) Especially if the number of tools owned by the school does not match the number of students taught. On the other hand, the existence of physical structures, physical conditions and physical abilities of elementary school students are still inadequate for activities that refer to the

standardization of tools and fields. The weight of the tools used in sports games often interferes with mastery of the basic skills of the game. Likewise with the type of rounders game. This is understandable, because schools have very many needs and almost all of them have a high level of urgency to be met by the school. So demanding schools to provide rounders according to ideal conditions is unrealistic and can further cause turmoil and an uncondusive climate in schools. In connection with this problem, especially learning to hit rounders, students need to be taught the correct hitting technique. In accordance with its development, the technique of hitting rounders is indeed known to be difficult because it requires extra energy and full concentration. If it is not done with extra strength and full concentration, the results of the hit are not so good. So, sports teachers are required to be able to teach is known to be difficult because it requires extra strength and full concentration. If it is not done with extra strength and full concentration, the results of the shot will not be so good (Benediktus 2016). So that sports teachers are required to be able to teach their students. Based on these problems, the researcher wants to take the title "Modification of Learning Media to Improve Learning Outcomes of Kasti Ball in Grade IV Students of SDN 21 Sui Raya".

Kasti is a small ball game played in teams. This traditional game emphasizes the elements of togetherness, dexterity, and joy. Generally, Kasti is played in an open field, and for elementary school children, this game can develop self-discipline and foster a sense of togetherness and solidarity between friends (Jalil 2023). To play Kasti well, skills such as hitting, throwing, catching the ball, and running are needed. This game is played by two teams, namely the batting team and the guard team (Ali 2022).

Game baseball is very important synergy between player in One team. According to Slameto, studying is efforts made somebody For reach change behavior in a way comprehensive based on experience the interaction with environment. While according to Winkel, learning is ongoing mental activity in a way active through interaction with environment and produce change in knowledge, understanding, skills, and mark a tendency to relatively stable.

METHOD

This research was conducted using the Classroom Action Research (CAR) approach. The term in English is (Classroom Action Research) (Prihantoro 2019). The name already shows the contents contained in it, namely a research activity carried out in

the classroom. According to Suharsimi Arikunto, et al. (in his book entitled Classroom Action Research, 2006: 58) stated that "Classroom Action Research is action research carried out with the aim of improving the quality of learning practices in his class". in his book Pelatihan.CAR As a Means of Improving the Quality of Learning that "Research activities start from real problems faced by teachers in the teaching and learning process, then alternative solutions to the problems are reflected and followed up with real actions that are planned and measurable".

Study This is study action class that implements approach qualitative with utilise primary data sources in the form of words or direct sentence originate from field and focused on a aspect certain. Data analysis was carried out in a way inductive, where the emphasis is on more given to the process rather than the final result (Gumilang 2016). The type of research used is participatory action research, which means that researchers are actively involved from planning to reporting. In its implementation, researchers are present in the field to design activities, carry out learning actions, observe the implementation process, interview research subjects, and compile research results reports (Dibyantoro 2017).

In research action class, aspect main is implementation action real by the teacher- as well as collaboration with party related to finish problems that arise in the learning process. The action must designed in a way mature and have clear indicators For measure its success. If the program is run Not yet succeed overcome problem, then need to be continued with cycle study next for try alternative solution until problem the can overcome.

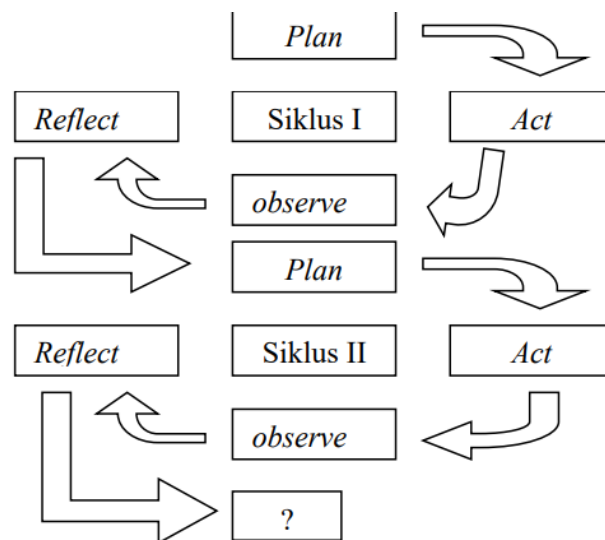


Figure 1. Football test Please

There are several experts who have put forward action research models with different diagrams, but in general there are 4 stages that are commonly followed, namely:

(1) Planning,

(2) Implementation,

(3) Observation, and

(4) Reflection. The model and explanation for each stage are as follows figure 1.

note:

a. Plan (action planning): will help students with learning strategies using obstacles to improve their squat long jump skills.

b. Act (implementation of action): implementation of learning media strategies using obstacles to improve the ability of the squat style long jump.

c. Observe (observation and interpretation): observe the process of implementing learning strategies using obstacles

d. Reflect (analysis and reflection): identify the weaknesses and strengths of the play learning model that has been carried out in cycle I - Cycle II, etc. The subjects used for research must not be separated from the theme or main objective of the research. In accordance with the title of this article, namely "The subjects used for research must not be separated from the theme or main objective of the research. In accordance with the title of this article, namely "Improving the Learning Outcomes of Rounders by Using Modified Learning Media for 28 Grade IV Students of SDN 21 Sui Raya".

RESULTS AND DISCUSSION

Based on results research, baseball learning proved to be very challenging for students. This is seen moment session learning, where before activity started, participants educate looks fear, even there is something that shows attitude dodge from material lesson. However, thanks to teacher skills and implementation the right approach, students Finally become interested and feel comfortable so that willing For participate active in the learning process. Teacher skills are really tested when student enjoy learning without feel existence pressure. With Thus, the original learning of baseball cause fear in students has changed become fun activities. Students who were previously mastered afraid now willing follow as well as with play, use any tools and media that support the learning process. The research conducted by sports teachers at SDN 21 Sungai Raya, Kubu Raya Regency took place with smooth, starting in early September until end the same month.

Although sometimes smoke covers environment school, implementation learning No hampered Because activity was done in the hall. Although the condition of the hall is less than ideal for Real baseball learning Enough challenge for students, educators still Work hard give optimal support. Based on results pre- implementation test For roller behind with 33 participants educated, only 3 students were declared to have passed, while 30 students other Not yet reach standard graduation. To make it easier to see the learning outcome data, it will be shown in the table below:

Table 1. Recapitulation of initial test scores for class students

Completeness	Number of students	Percentage
Complete	3	9%
Not finished yet	30	91 %
Amount	33	100 %

From the table presented, the data reveals that only 9% of participants students (3 students) who have reach completion, while 91% (30 students) have not reach standard. This is show achievements that are still Far from the minimum success target, namely 75% of participants education that must be meet the KKM of 75%.

Based on results pre cycle, researcher feel obliged For give learning advanced with method modify use of wooden bat as high as waist student in a way repeatedly, so that understanding and skills they about technique blow in baseball increases. As a result, in the cycle First, of the 30 students who initially not graduated yet, 28 student succeed reach criteria graduation, although Still There are 5 students who have not fulfil standard.

Table 2. Recapitulation of test results for cycle 1

Completeness	Number of students	Percentage
Complete	28	84%
Not finished yet	5	16%
Amount	33	100 %

From table 2 above, it is stated that the number of students who passed the baseball learning in cycle 1 was 28 students (84%) and there were still 5 students who had not passed (16%) so it was still necessary to continue to the next cycle. Responsive to in the next cycle, the teacher tries to increase the variation of learning baseball, both movements from the front, side, back and while walking and running to ensure that students often catch and hit baseball. From this implementation, it produces an interesting application, students feel happy and the learning of baseball hitting in the second cycle has achieved maximum completion, all 33 students passed.

Table 3. Recapitulation of Student Learning Outcome Values in Cycle II

Component	Number of students	%	Kkm	Grade
Complete	33	100%	75	Average
Not finished yet	0	0%	75	
Amount	33	100%	150	90
Average	-		75	

Table 3 above shows that in general there was an extraordinary increase in the ability to learn baseball by playing in Class IV students of SDN 21 Sungai Raya, Kubu Raya Regency in Cycle II, namely the average percentage value from cycle I of 70% to 100% in cycle II. So, it can be concluded that in Cycle II there was an increase of 30%.

CONCLUSION

When the pre-cycle students experienced completion with a total of 3 students or 9%. When cycle 1 was carried out with modifications, there was an increase of 28 students graduating with a record of 90%. When cycle 3 was carried out, 100% or 30 students graduated or completed.

REFERENCES

- Ali. 2022. "Basic Technique Analysis of Cricket Bowling." *Indonesian Journal of Sports and Health* 2(2): 117–24. doi:10.55081/joki.v2i2.594.
- Benedictus. 2016. "Learning Outcomes of Kasti Ball Hitting Through Tennis Ball Media Approach at SDN 25 Bak Merat." *Scientific Article, Physical Education, Health and Recreation, Sports Science, FKIP Tanjungpura University* : 1–11. <https://media.neliti.com/media/publications/214136-hasil-belajar-pukulan-bola-kasti-melalui.pdf>.
- Darmawan. 2018. "Using Tennis Ball Media for Grade VI Students of Madrasah Ibtida 'Iyah Psm Gambyo." *Kahuripan Education Journal* 1(1): 49–56.
- Dibyantoro, Syarif Santoso. 2017. "Academic Supervision Management to Improve the Performance of Physical Education Subject Teachers in Bantul Regency." *Utile: Journal of Education* 3(2): 126–37.
- Fatoni. 2021. "The Effect of Physical Activity Gross Motor Skill Program on Body Mass Index and Physical Fitness Level." *Multilateral: Journal of Physical Education and Sports* 20(1): 1. doi:10.20527/multilateral.v20i1.9539.
- Gumilang, Galang Surya. 2016. "Qualitative Research Methods in Midwives." *Focus Counseling Journal* 2(2): 144–59.
- Jalil. 2023. "Preservation and Mapping of Children's Playgrounds in Increasing Learning Motivation at Al-Aziziyah Kindergarten, Samalanga." *Khadem: Journal of Community Service* 2(2): 270–84. doi:10.54621/jkdm.v2i2.713.
- Lailatul. 2015. "PHYSICAL EDUCATION AND SKILLS ACCORDING TO THE QURAN AND HADITH." : 8.

- Prihantoro. 2019. "Ulumuddin: Journal of Islamic Sciences CONDUCTING CLASS ACTION RESEARCH." *Ulumuddin: Journal of Islamic Sciences* 9(1): 49–60. https://jurnal.ucy.ac.id/index.php/agama_islam/index.
- Sahabuddin. 2022. "Bow Modification Method to Improve Archery Results." *Jambura Journal of Sports Coaching* 4(1): 45–54. <https://ejurnal.ung.ac.id/index.php/jjsc/article/view/14062/4115>.
- Saitya. 2022. "Efforts to Form Student Character Through Physical Education Learning." *Sports Education* 1(1): 9–13.