



Efforts to Improve Learning Outcomes of Bullet Repellent Skills in Elementary School Students With Tail Ball Action Modifications

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Abstrak

Olahraga tolak peluru merupakan salah satu dari cabang olahraga atletik nomor lempar. Tolak peluru secara umum menggunakan besi berbentuk bulat dengan ukuran yang bervariasi mulai dari 2kg sampai dengan 7kg. Penelitian ini bertujuan untuk meningkatkan hasil belajar siswa pada tolak peluru dengan menggunakan modifikasi alat bantu tali bola kasti. Penelitian ini dilaksanakan di Sekolah Dasar Negeri 1 Margomulyo Ngawi. Penelitian ini melibatkan seluruh siswa kelas V dengan jumlah 25 siswa terdiri dari 11 laki-laki dan 14 perempuan. Metode yang digunakan dalam penelitian ini adalah Penelitian Tindakan Kelas dengan teknik pengumpulan data melalui observasi dan tes. Penelitian dilaksanakan dengan menggunakan dua siklus. Pada siklus I siswa yang tuntas 11 (44%) sedangkan yang belum tuntas sebanyak 14 (56%) siswa dengan nilai rata-rata 65. Pada siklus II terjadi peningkatan hasil belajar yang signifikan secara keseluruhan 25 (100%) siswa telah tuntas melaksanakan pembelajaran dengan nilai rata-rata 86. Berdasarkan hasil tersebut, terbukti bahwa penggunaan modifikasi tali bola kasti dapat meningkatkan hasil belajar siswa materi tolak peluru.

Kata Kunci: Tolak Peluru, Modifikasi, Bola Kasti

Abstract

The sport of shot put is one of the athletic disciplines of the number throw. Bullet repulsion in general uses round-shaped iron with sizes that vary from 2kg to 7kg. This study aims to improve student learning outcomes on bullet repellent by using modified ball rope aids. This research was conducted at Margomulyo Ngawi State Elementary School 1. This study involved all grade V students with a total of 25 teriri students from 11 men and 14 women. The method used in this study is Classroom Action Research with data collection techniques through observation and test. The study was carried out using two cycles. In the first cycle, students who completed 11 (44%) while those who were not completed were 14 (56%) students with an average score of 65. In cycle II there was a significant increase in overall learning outcomes 25 (100%) students had completed learning with an average score of 86. Based on these results, it was proven that the use of ball rope modifications can improve student learning outcomes in bullet repellent material.

Keywords: Shot Repulsion, Modification, Caste Ball

Introduction

Physical education is one of the sources of learning by paying attention to various aspects, including affective, cognitive, or psychomotor aspects designed to improve physical fitness, and healthy living behaviors (Munir et al., 2021). In some of these aspects, it can be concluded that physical education is very important to be instilled from an early age, because it can pursue how to carry out a healthy lifestyle, and instill positive values contained in physical education itself. There are several statements that have been put forward by previous researchers related to physical education, including, according to (Herpandika & Kurniawan, 2020) Physical education is a form of teaching and learning media with an interest in physical activity, so that educators are mainly in order to take advantage of physical activity in the world of education in order to achieve physical education goals. Menurut (Munir et al., 2022) Physical education plays an important role in the world of education, and vice versa the world of education is very important in physical education, so that the two are very balanced. According to (Firdausi, 2018) Having a statement related to physical education is education which aims to develop growth in the body in order to create improvement for students both physical and non-physical, so it can be concluded that there are quite a lot of benefits obtained by students in participating in physical education learning. There are even more opinions from previous researchers from (Nugraha, 2015) suggests that physical education is a learning that prioritizes physical activity in order to gain life experiences such as emotions, cooperation, intelligence, attention, or skills, etc. And according to (Taqwim et al., 2012) Physical education is education that is generally integral, so that learning itself greatly affects various potentials, including: emotional, psychological, or cognitive in students through physical activity. So from various statements from various experts, it can be concluded that it is very important in studying physical education, because physical education can improve motor skills and characteristics in students. In a series of teaching and learning activities for students, especially in sports learning itself, there are several sub-materials that can be provided by learners. Among the sub-materials of volleyball, basketball, football, futsal, or even up to athletic sports, such as: 100 m run, long jump, javelin throw or even shot put. So that in this study, the researcher will conduct a research study by taking sub-variables on bullet repulsion.

Shot put is one of the athletic sports that is played by rejecting an iron bullet as far as possible.

Basically, the essence of the bullet repellent game itself is how to hold the bullet, to be able to throw as far as possible, you must understand some techniques in throwing a shot put. The bullet repulsion game is one of the sports that is included in the category of athletics. According to (Candra & Setiawan, 2020) The sport of athletics is the parent of all sports that are very comprehensive physical exercises, so that it can provide satisfaction to humans in order to get the impulse of their instincts to be able to move. While according to (Kresnapati, 2018) Athletics is one of the oldest sports in the world and a group of sports that include walking, running, jumping, and throwing. And according to (Hasan et al., 2015) Athletics is a series of sports played in shortcut competitions, including brisk walking, running, jumping, and throwing. So from this statement, it can be concluded that athletics is the parent of sports that are physical training in general, such as: brisk walking, running, jumping, and throwing. Bullet repellent is usually played at the National Sports Week competition or even sapai to the National Student Sports Week event. According to (Kardiyono dalam Suastrri, 2019) Shot put is a sport that includes jumping, throwing, running, and walking. At this time it can be said to be the oldest sport, because the age of athletics is as old as it was in human civilization. According to (Sagitarus, 2008) Shot put is a form of number in throwing in athletics. Where the achievement of the bullet repulsion itself is a sport that cannot be separated from 4 factors, including: (1) technical ability, (2) tactics, (3) physical, (4) and mental conditions. While according to (Permana et al., 2021) Bullet repellent is a form of skill that aims to push or resist a bullet as far as possible. So it can be said to win whenever it can throw bullets as far as possible. While according to (Yova & Dewantoro, 2019) Bullet repulsion is a sport that relies on an explosive coordination of resisting movements, because in these movements it takes direction and strength to get maximum results.

So that the results of the case study from this study which have been observed as well as carried out an action for 2 months, where in this study has been adjusted to the educational calendar schedule at the SDN Margomulyo 1 Ngawi institution with a sample of class V students, found that there are still many students who have not been able to make skill movements in playing bullet repellent, Due to the weight factor of the bullet repulsion itself, the weight of the number of bullet repulsion sizes can affect the level of concentration of students in performing repulsion movements. The results of the data obtained by the researchers were recorded from as many as 25

students divided into 14 women and 11 men, there were only 6 children who could perform bullet repellent game movements using iron bullets, and the remaining 19 could not perform bullet repellent movements with iron balls. So that the Tail Ball Action modification method can help students in carrying out bullet repellent game movements. Because in addition to being able to help students in improving bullet repellent skills, it can also help educators in minimizing time so that time can be efficient and run as it should. According to (Munir Ali, Sumaryanti, 2022) Modified game is a form of game where the game has been changed according to the needs and abilities of participants to be able to improve the skillful movement.

In order to improve the quality of the level of validity in the variables of this study, researchers have destroyed several previous studies using models of these modifications that can help and improve the movement of skills in playing bullet repellent. Among them are the results of research from (Prayugo et al., 2016) entitled "Improving Bullet Repellent Learning Skills With Kasti Ball Modification Bullets in Students at PGRI Kepung Junior High School" then research from (Fitriyanto, 2017) entitled "Improving Bullet Repulsion Ability by Learning Bullet Modification from Kasti Balls in Students of SDN Karang Pelem 1 Sragen" then the research researched by (Jumaking, 2018) entitled "Improving Bullet Repulsion Learning Outcomes through Kasti Ball Modification Tools in Bullet Repulsion Learning for Class V Students of SD Inpres Pa'baeng Baengkota Makassar" from the results of some of these studies, it can be concluded that studies that can improve the motion of bullet repellent display by using caste balls to elementary school students get very satisfactory results, so that with the support of previous researchers the initiative emerged from researchers to be able to improve the skilled motion of the bullet repellent by using a ball, but packaged with several different systems and models.

Method

In this study, the researcher will conduct a study where will get a data from the results of the PTK (Class Action Research) method. Class action research is one of the research methods where the method is about problems that exist in the classroom, so that the purpose of class action research itself is none other than to solve problems in the classroom. According to (Jacub et al., 2020) Class action research is a form of scrutiny of activities where the activity is intentional and appears in the classroom. And according to (Supriyanto, 2009) Classroom action research is a form of scientific writing where

the publication is a very important unit by teachers / educators. So it can be concluded that in class action research plays an important role in achieving the quality and quantity of the institution concerned in order to increase the potential that exists in students..

The place of this research was conducted in one of the agencies under the Ngawi District Education Office, namely SD Negeri 1 Margomulyo Ngawi. Where SD N Margomulyo 1 is located right at the midpoint of the city, which is located at Jl. Yos Sudarso, No. 17 B, Kel. Margomulyo, Kec. Ngawi, Kab. Ngawi. The sample from this study was students from class V with data of 25 students divided into 11 men and 14 women. At this stage of the study, the researcher conducted research as many as II cycles and was sufficient in the second cycle, because in the second cycle there was a significant increase so that the realization of research on this variable. Here are some phases of stages carried out by researchers, namely:

1. Planning Phase

In this initial planning stage, researchers made several observations first called pre-cycle, where in this pre-cycle there were 6 students who had succeeded above KKM, but the rest still did not reach the KKM standard. So that at this planning stage the researcher has prepared some equipment such as the caste tail ball, where the caste ball is given a tail with raffia rope, so that when it is rejected will look like a tailed ball and some assessment instruments that have been prepared by researchers for learners.

2. Implementation Phase

At this stage of implementation is the stage where the peak of students performs skilled movements to reject bullets. Where students will do:

- a) Learners drop out of class and prepare to head to the field
- b) During the field, several educations were carried out by related researchers about the material to be delivered
- c) Students do do'a as a form of implementation of affective assessment
- d) Students warm up first
- e) After warming up, then parked the results of the delivery of material that had been given by the researcher to perform several force movements that were in the skillful motion of the bullet repellent using the Tail Ball.

3. Observation Stage

At this stage of observation, the researcher observes several series of skilled movements that have been carried out by students, and helps students to be able to understand in learning the skilled motion of bullet repellent

4. Reflection Stage

As a result of this reflection tap, students are able to perform skilled movements in the game of bullet repellent, but researchers are still not satisfied so that researchers re-do the planning, implementation, and observation stages in cycle II.

Data collection techniques taken by researchers use observation and test systems. Where the observation is the researcher makes an observation during the research process and conducts a final test on students with indicators of the success of the bullet repellent sub-material class action research with a minimum standard KKM 70 with the following table:

Table 1. KKM Standard Indicators

Value	Criterion	Description of Learning Outcomes
81-100	Excellent	Complete
66-80	Good	Complete
51-65	Enough	Incomplete
0-50	Less	Incomplete

(Setiawan & Akhiruyanto, 2015)

Results and Discussion

Before the study was conducted, researchers first conducted a basic competency test of students on the results of learning sideways style puluru reject movement skills. From the results of the initial conditions, it has not been seen that it is satisfactory, there are only 6 students who have completed learning while the students who have not completed are 19 students. The average score of students of only 60 scores is still far from the minimum score of completion of learning, which is 70. It can be concluded that student learning outcomes on sideways style bullet repellent learning can be said to have not been completed in carrying out learning.

Cycle I

The results of the initial conditions are known that students have not completed carrying out bullet repellent learning, then in cycle I researchers fix the problem of students who have not completed carrying out bullet repellent learning. The results of bullet repellent learning in cycle I were seen to improve better than the initial conditions. The following bullet repellent learning results are presented in the table:

Table 2. Results of The First Cycle Bullet Repulsion Learning Assessment

Aspects	Information
Average Value	65
Completed Students	11
Incomplete Students	14
Percentage Complete	44%
Incomplete Percentage	56%

Based on the results above, it is known that the average score of students who learned to reject bullets using modified ball ropes was 65, students who completed learning were 11 (44%) students. Meanwhile, students who have not completed 14 (56%) students. The results of the first cycle still have not reached the average learning completion of the student's score of 65 while the minimum score of learning completion is 70. From these results, the researcher continued at the second stage of the cycle. Before proceeding to cycle II, researchers first evaluate the problems that cause students to not complete learning. The results of the evaluation are presented at the reflection stage, more clearly as follows :

1. The student's movements have not been balanced when performing a sideways force, especially on the legs as the main footing.
2. The position of the bullet is not yet in the correct position, that is, near the neck.
3. When throwing, students still rely on arm strength, the legs should also coordinate with the hands when throwing to provide a stronger push.

Cycle II

The results of cycle II students have not completed learning, from the results of existing reflections, researchers fix these problems in cycle II. Cycle II learning outcomes improved significantly. Berikur is the result of cycle II learning presented in the following table:

Table 3. Results of the Bullet Repulsion Learning Assessment

Aspects	Information
Average Value	86
Completed Students	25
Incomplete Students	0
Percentage Complete	100%
Incomplete	0%

Percentage

Based on the results above, it is known that the average score of bullet repellent students using modified ball ropes is 86, overall students have completed bullet repellent learning, 25 students have completed the learning. The result of cycle II is declared complete with an average value of 86, the value has exceeded the minimum completion value of 70. From these results, the researcher did not continue at the next stage because they had reached the completion of learning. As material for reflecting on the completeness of student learning, it is clearer as follows:

1. The enthusiasm of the students is very good when using the modification of the caste ball, the students do not feel heavy when using the tool
2. The student movement is completely correct at the time of carrying out the practice of bullet repellent
3. At the time of throwing, students no longer only use arm strength, students' legs also coordinate as an additional force of encouragement when throwing.
4. The position of the student's bullet is also correct, which is just below the ear near the neck.

The results of research that has been carried out by researchers to elementary school students at SDN Margomulyo 1 on bullet repellent learning with caste ball rope modification have succeeded in improving this learning. Judging from pre-cycle to cycle II, the improvement in student learning outcomes is significant. Bullet repellent learning is a learning that exists in athletics in the throwing category.

The increase in student learning outcomes was significant, in the first cycle student learning outcomes averaged 65 scores, students who completed learning 11 (44%), students who were not completed as many as 14 (56%). In the first cycle, students still seem to have not really mastered the sideways movement technique like what has been taught by the teacher, besides that the balance of students also looks unstable when throwing bullets, especially the legs are an important fulcrum in addition to providing strength assistance when throwing. Therefore, researchers fix these problems in cycle II. In cycle II as a whole students have achieved belar completion, as many as 25 (100%) students have completed in carrying out bullet repellent learning with modifications made of caste ball ropes. The

average score of students in cycle II is 86. In cycle II the student's movements are good as taught by the teacher, not only that when throwing bullets the student completely does not rely on arm strength but is also assisted by the legs to provide a strong push.

Bullet repellent modifications made of ropes and balls are very useful for elementary school students. The tool looks unique in the eyes of children, besides that the various shapes and colors of the ropes also provide a good attraction for children. Unlike the actual shot put, the average student is afraid to try because in terms of the size of the bullet repellent. In addition, the strengths of students are also diverse. So that when practicing the force on the repulsion of the bullet hesitating at the time of throwing, this will endanger the student himself, if the push is wrong then the student's arm is at risk of injury besides that if his hand is not sufficiently stretched the bullet can fall and be hit by the leg. The existence of this modification aims to train students when performing the bullet repellent force properly and correctly. In addition, its small size and light weight make students not afraid and hesitant to practice a sideways style on the bullet repulsion as stated by the teacher.

Previous research conducted by (Hartini et al., 2015) and (Tampubolon & Hamonangan, 2020) can improve the learning outcomes of bullet repellent and improve the ability of force on the shot put, seen from cycle I to cycle II the student's learning score was seen to increase significantly in cycle I the average student score of 77.03 while in cycle II the average student score was 84.44.

Conclusion

The results of research on elementary school students at SDN Margomulyo on bullet repellent learning outcomes using modified caste ball rope aids have been able to improve student learning outcomes, as evidenced by the increase in student learning in cycle I to cycle II. The modification of the caste ball strap is very attractive to children because of its light size and the shape of the rope that is of various colors so that children are interested in trying to use the tool.

Bibliography

- Candra, A. T., & Setiawan, W. (2020). Improving Learning Outcomes of Sideways Style Bullet Repellents Using Caste Ball Modification Aids. *Journal of Health Education ...*, 25–30.
<https://ojs.mahadewa.ac.id/index.php/jpkr/article/view/602%0Ahttps://ojs.mahadewa.ac.id/index.php/jpkr/article/download/602/483>

- Firdausi, D. K. A. (2018). Improved Freestyle Swimming Learning Outcomes. *CHAMPIONS : Sports Journal*, 3(1), 63.
<https://doi.org/10.33222/juara.v3i1.216>
- Fitriyanto, F. (2017). Improving Bullet Repulsion Ability by Learning Bullet Modification from Kasti Balls in Students of SDN Karang Pelem 1 Sragen in 2016. *Scientific SPIRIT*, 16(2), 25–35.
- Hartini, H., Yunitaningrum, W., & Atiq, A. (2015). Efforts to Improve Orthodox's Style Bullet Repulsion Learning With Caste Ball Modification Media In SDN. *Equator Informatics*, 3(2), 124–133.
<https://doi.org/http://dx.doi.org/10.26418/jppk.v4i4.9833>
- Hasan, S., Winarno, M. E., & Tomi, A. (2015). Development of Basic Throwing Motion Game Model for Grade V Students of Sdn Tawangargo 4 Karangploso Malang. *Journal of Sports Education*, 4(2), 182–200.
- Herpandika, R. P., & Kurniawan, W. P. (2020). Breaststroke Swimming Learning with an Inclusion Method Approach. *Indonesia Performance Journal*, 4(1), 1–9.
- Jacob, T. A., Marto, H., & Darwis, A. (2020). Problem Based Learning Learning Model in Improving Social Studies Learning Outcomes (Class Action Research Study at SMP Negeri 2 Tolitoli). *Scientific Tolis; Journal of Research*, 2(2), 140–147.
https://ojs.umada.ac.id/index.php/Tolis_Ilmiah/article/view/126
- Jumaking. (2018). Peningkatkan hasil belajar tolak peluru melalui alat bantu modifikasi bola kasti pada pembelajaran tolak peluru murid kelas v sd inpres pa'baeng -baengkota makassar. *Jurnal Penjaskesrek*, 54–66.
- Kardiyono in Suastrri, N. K. (2019). Bullets style sideways on. 3, 222–229.
- Kresnapati, P. (2018). Kinesiological Analysis of Body Skills Techniques in Orthodock Style Bullet Repulsion Sports Students of Pjkr Upgris. *JSES : Journal of Sport and Exercise Science*, 1(2), 37. <https://doi.org/10.26740/jses.v1n2.p37-41>
- Munir, A., Arief Nur Wahyudi, & Aba Sandi Prayoga. (2021). Model Discovery Learning Approaches in Basketball Game Shooting Technique Skills. *Journal of Modern Education*, 6(2), 68–73.
<https://doi.org/10.37471/jpm.v6i2.190>
- Munir, A., Zahed, A., Qurtubi, A., & Wahyudir, A. N. (2022). Improved Learning Outcomes of Football Passing In Elementary School Students With The Sport For Development Method. *Sports Window*, 7(2), 119–129.
- Munir Ali, Sumaryanti, S. B. (2022). Improved Gross Motor Control of Children Through S4D (Sport For Development) In Children Aged 3-5 Years. *Golden ECCE Journal*, 1(2), 13–17.
<https://online-journal.unja.ac.id/jpe/article/download/18876/13530>
- Nugraha, B. (2015). Early Sports Physical Education. *Journal of Children's Education*, 4(1), 557–564.
<https://doi.org/10.21831/jpa.v4i1.12344>
- Permana, son of sudeni suheri, Akhmad, S., & M, rizal rony. (2021). Journal of master of sports & sports. *Master Journal of Sports & Sports*, 2(April), 127–136.
<http://ejournal.upi.edu/index.php/JKO>
- Prayugo, D., Teacher Training, F., Science, D. A. N., Nusantara, U., Guru, P., Indonesia, R., Kediri, U. N. P., & Prayugo, D. (2016). Improved bullet repellent learning skills with ball modification bullets in students at the junior high school in 2016.
- Sagittarius. (2008). *Journal of Sports Coaching*, Volume 1 ., Basic Philosophy And Techniques Of Shotokan Karate.Karate Module. FPOK UPI Bandung., 1(1), 31–41.
- Setiawan, A., & Akhiruyanto, A. (2015). Improved football passing learning outcomes through animal hunter games. *Journal of Physical Education, Sport, Health and Recreations*, 9(1), 23–27.
<https://doi.org/https://doi.org/10.15294/active.v4i10.8137>
- Supriyanto, A. (2009). Improving the ability of teachers in writing scientific papers through classroom action research training. 1, 1–7.
- Tampubolon, S., & Hamonangan, H. (2020). Modification of Assessment Learning Tools To Improve Bullet Repellent Learning Outcomes In Vocational High School Students. *Journal of Achievement*, 4(1), 17–21.
<https://doi.org/10.24114/jp.v4i1.18390>
- Taqwim, R. I., Winarno, M. E., & Roesdiyanto. (2012). Implementation of Evaluation in Sports and Health Physical Education Learning. *Journal of Physical Education*, 5(3), 395–400.
- Yova, V. P., & Dewantoro, D. A. (2019). Modification of Bullet Repulsion Devices in the Sport of Bullet Repulsion of Children with Disabilities. *Journal of ORTHOPEDAGOGIA*, 5(1), 18–23.
<https://doi.org/10.17977/um031v4i12018p018>