

The Basic Shot Put Skills Improvement through Modification of Plastic Ball Media in Elementary School

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Abstract. Based on the reality conditions, the fifth grade students at Tunglur Public Elementary School, Badas District, Kediri Regency, experienced difficulties when lifting and throwing iron balls in shot put movements. Minimal strength in lifting and throwing iron balls resulted in errors of the basic shot put movement, therefore a modification of learning media was needed. The research method used was Classroom Action Research (CAR) which was conducted through several steps, namely planning (Plan), Implementation (Action), Observation (Observe), and reflection (Reflect). The stages of the research included pre-cycle, cycle 1 and cycle 2. The pre-cycle was conducted to observe the constraints in shot put learning. In the results of cycle 1 that the total scores of very good and good overall students were 47%, which indicated that the research was not successful. Then cycle 2 was conducted with the results of the total acquisition scores of very good and good overall students were 64%, which indicated that the research was successful. So it can be concluded that the application of media modification in the form of plastic balls in shot put learning can improve the basic ability of shot put in fifth grade students of Tunglur Public Elementary School, Badas District, Kediri Regency.

Key words: basic ability; shot put; modification of plastic ball media

Abstract in Indonesia. Berdasarkan kondisi realita pada siswa kelas V SD Negeri Tunglur Kecamatan Badas Kabupaten Kediri, mengalami kesulitan saat mengangkat dan melempar bola besi daam gerakan tolak peluru. Kekuatan yang minim dalam mengangkat serta melempar bola besi mengakibatkan kesalahan dalam gerakan dasar tolak peluru, sehingga diperlukan modifikasi media pembelajaran. Metode penelitian yang digunakan ialah Penelitian Tindakan Kelas (PTK) yang dilakukan melalui beberapa langkah yaitu perencanaan (*Plan*), Pelaksanaan (*action*), Pengamatan (*observe*), dan refleksi (*reflect*). Tahapan penelitian antara lain pra siklus, siklus 1 dan siklus 2. Pra siklus dilakukan untuk mengamati kendala dalam pembelajaran tolak peluru. pada hasil siklus 1 bahwa jumlah perolehan nilai sangat baik dan baik keseluruhan siswa sebesar 47%, yang artinya penelitian belum berhasil. Maka dilakukan siklus 2 dengan hasil jumlah perolehan nilai sangat baik dan baik keseluruhan siswa sebesar 64%, yang artinya penelitian berhasil. Maka dapat disimpulkan bahwa penerapan modifikasi media berupa bola plastik pada pembelajaran tolak peluru dapat meningkatkan kemampuan dasar tolak peluru pada siswa kelas V SD Negeri Tunglur Kecamatan Badas Kabupaten Kediri.

Kata Kunci: keterampilan dasar; tolak peluru ; modifikasi media bola plastik

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INTRODUCTION

The development of education is influenced by advances in technology and information. This causes the creation of competition in various fields of education, including in the field of sports. Competition that occurs in the world of sports requires teachers to create innovations with the aim of improving the quality of students' sports abilities. Innovation can be applied in various sports, for example athletics. Athletics is the mother of most sports (mother of sport). This is because all forms of sport activities in athletics are the main components in all sports. The athletics branch is divided into several numbers, namely: running, jumping and throwing. The importance of athletics places it in a compulsory subject in elementary schools, namely physical education.

Shot put is the teaching of athletics physical education in elementary schools. Shot put is included in the category of athletics, namely throwing. The aim of shot put is to throw as far as possible legally and correctly according to existing rules. There are 2 types of shot put styles, namely the orthodox style (sideways style) and Obrien style (backward style). In creating maximum performance through shot put Utomo (2011) explains that there are influencing factors, namely the development of basic techniques.

The basic technical elements in shot put are the initial position and stance (holding the ball, sideways body position, body weight on the back), implementation of the motion (rotating leg swing followed by the back leg being shifted forward, the body rotates towards the throwing sector then pushes the ball at an angle 40-45°) and final position and stance (landing parallel to the left leg to maintain body balance). Basic technique preparation by students is something that needs special attention as the main basis in the development of shot put sports. So teaching basic technical skills in shot put requires innovation so that it can be easily accepted by students.

Innovation in education and learning can be done through various forms such as modification of learning media. Modification is an implementation that is highly integrated with educational aspects. Modifications are intended to analyze and develop subject matter by arranging it in the form of potential learning activities so that it can facilitate students in their learning (Saputra, 2015). So the existence of modifications to learning media has a crucial role in the learning process, namely to increase student activity and understanding (Mutia, 2016). Modification of learning media in physical education, especially shot put, plays a role in facilitating the acceptance of information from teachers to students regarding basic movement patterns (Pratiko, 2017).

Therefore in increasing practical understanding of the basic ability of shot put, it is necessary to have media modifications. In line with what states that renewal in the educational process is the existence of modifications of learning media (Kuswanto, 2019). In modifying media, teachers need to examine the needs and characteristics of students. This is done to make it easier to achieve learning success. In addition, teachers must also understand children's motor development, thus teachers can choose learning media appropriately, learning becomes effective hence learning objectives can be achieved optimally (Prastya, 2016).

Based on the results of observations on the learning process of physical education at Tunlur Public Elementary School, Badas District, Kediri Regency, it was found that students were less active in performing the shot put movement. The lack of student activity was caused by the difficulties encountered when lifting and throwing iron balls. Minimal strength in lifting and throwing iron balls resulted in errors of the basic shot put movement. Therefore the researchers modified the learning media so that students could perform the basic shot put movements in accordance with the provisions.

Research on modification of learning media in physical education subjects has also been carried out by previous researchers. The results of the study by Warniati et al., (2022) stated that media modification in athletics (shot put) was considered appropriate by material experts and media experts and was considered effective in small class experiments (88.53%) and large class (89%). The same research was also carried out by Hendra & Hariyadi (2020) in which media modifications in athletic sports (shot put) were considered appropriate by physical education learning experts (95%) in the very strong category and by media experts III (95%) in the very strong category.

Based on the study above, the researchers modified the learning media in athletic sports (shot put) to improve students' basic abilities through modification of plastic ball media at Tunlur Public Elementary School, Badas District, Kediri Regency.

METHODS

This research method is Classroom Action Research (CAR). This classroom action research went through several steps including planning (Plan), Implementation (action), Observation (observe), and reflection (reflect). This stage took place repeatedly until the research objectives were achieved (Arikunto, 2014). The research step procedure can be seen in Figure 1.

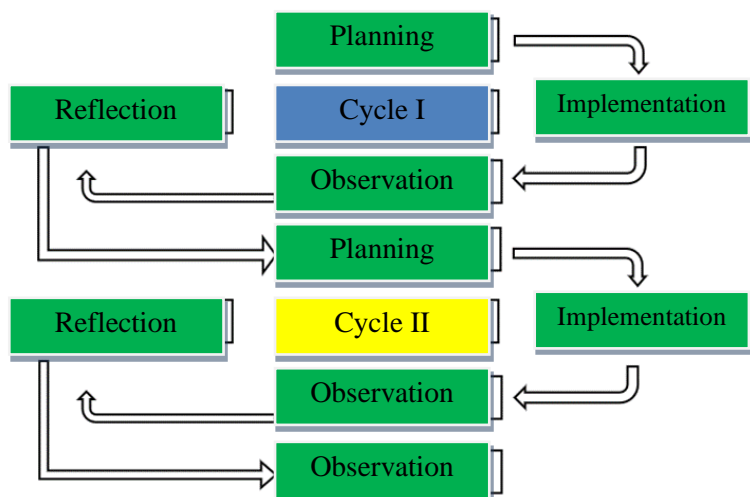


Figure 1. Classroom Action Research (CAR) Model

Planning includes making teaching modules that contain the determination of basic shot put technique materials. Implementation is for warming up and giving examples of shot put movements using modification of plastic ball media by the teacher properly and correctly. Observations were made to see the basic abilities of students in performing the shot put movement (the initial stance of executing the motion and the final stance). Reflection is conducted to analyze the results of the implementation which has been performed, therefore a decision can be made whether the research has been successful or has been failed. The basic shot put skills assessment rubric for students can be seen in Table 1.

Table 1. The Basic Shot Put Skills Assessment Rubric

No	Essential Indicators	Movement Description	Yes (1)	No (0)
1	Initial Position and Stance	Legs		
		Body		
		Arms and Hands		
		Eyesight		
2	Implementation of the motion	Legs		
		Body		
		Arms and Hands		
		Eyesight		
3	Final Position and Stance	Legs		
		Body		
		Arms and Hands		
		Eyesight		

In addition, the assessment of the basic ability of shot put is also seen from the aspect of the result of throwing. The results of the throwing are seen from how far the modification of plastic ball media was thrown from the student's starting point. The results of the throwing assessment can be seen in Table 2.

Table 2. The Results of Throwing Assessment Rubric

Score Acquisition		Score Acquisition
Male	Female	
..... > 5 meter > 4 meter	4
4.00 – 4.99 meter	03.00 – 03.99 meter	3
3.00 – 3.99 meter	02.00 – 02.99 meter	2
.... < 3.00 meter	... < 02.00 meter	1

The scores obtained from each student will then be searched for on average using the following formula:

$$\text{Score} = \frac{\text{The total scores of each category}}{\text{Total maximum scores of each category}} \times 100\%$$

The research was conducted in several stages, namely pre-cycle, cycle 1 and cycle 2. The research conducted in the pre-cycle was on 3 May 2023, cycle 1 on 10 May 2023 and cycle 2 on 17 May 2023. The subjects in this study were fifth grade students at Tunglur Public Elementary School, Badas District, Kediri Regency which consisted of 12 male and 18 female students. The research was said to be successful if the total scores of very good and good overall students was good by > 50%. Classification of values can be seen in Table 3.

Table 3. Score Classification Rubric

Score Range	Score Classification
88-100%	Very Good
76-87%	Good
60-75%	Fair
0-60%	Poor

RESULTS AND DISCUSSION

The research was conducted through several stages, namely pre-cycle, cycle 1 and cycle 2. The pre-cycle was conducted through observation in the physical education learning process on the basic motion of shot put. During the implementation of learning it was found difficult for students to apply the basic motion of shot put properly and correctly. This was because students still had difficulty lifting, holding and throwing heavy weights of iron ball.

So the researchers modified the learning media for the basic motion of shot put using a plastic ball. At the pre-cycle stage, the researcher designed modules, materials, and assessed the basic throwing ability of students. Of course, the plastic ball modification modules and media were designed to suit the needs and characteristics of students

Furthermore, the researcher conducted cycle 1 through the implementation of the learning process using modified plastic balls media for students. Observations were made to see the progress of basic skills in performing the basic shot put motion. Observation results can be seen in Table 4.

Table 4. Observation Result Cycle 1

Score Classification	The number of Students	Percentage
Very Good (88-100%)	4	13%
Good (76-87%)	10	34%
Fair (60-75%)	13	43%
Poor (0-60%)	3	10%

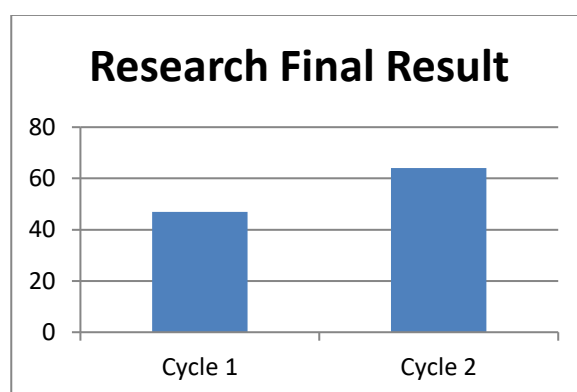
Based on the results of observations in cycle 1, the total score obtained very good and good for overall students was 47%. So it could be said that the implementation of cycle 1 had not been successful. In the implementation of cycle 1 obstacle were found, students were less active in the learning process. This was proved that students were still doing the basic motion of shot put haphazardly (not according to the rules). Thus the researcher conducted cycle 2 by providing innovation through the application of a game-based cooperative learning model.

Cycle 2 was conducted while still using plastic ball media as a form of media modification by applying a game-based cooperative learning model. Researchers divided into several groups, to collect the most scores based on observational assessment guidelines. The group with the most scores would be the winning group. The results of the implementation of cycle 2 can be seen in Table 5.

Table 5. Observation Result Cycle 2

Score Classification	The number of Students	Percentage
Very Good (88-100%)	9	30%
Good (76-87%)	10	34%
Fair (60-75%)	9	30%
Poor (0-60%)	2	6%

Based on the results of cycle 2 observations, it indicated that the total scores very good and good overall student was 64%. So it could be concluded that the implementation of physical education material on the basic movement of shot put using modified media in the form of plastic balls can improve the basic skills of throwing the ball (shot) in fifth grade students at Tunglur Public Elementary School, Badas District, Kediri Regency. The increase from cycle 1 to cycle 2 is shown in Figure 2.

**Figure 2.** Research Final Result Diagram

The existence of modifications to learning media in physical education on shot put materials using plastic balls has been conducted through 2 cycles. Modified media is present to overcome problems regarding students' difficulties in using iron balls as a medium in shot put, so media modifications are presented according to the needs of students at Tunglur Public Elementary School, Badas District, Kediri Regency. The output of this study is modification of plastic balls media which is effective in improving students' basic shot put skills.

Media modification in physical education learning had also been done by Sur'in et al., (2014) where the results indicated that media modification could improve the basic shot put skills. In line with the results of research by Nisa et al., (2018) which demonstrated that the existence of modified media in shot put learning could increase student activity and learning outcomes. This proves that good basic skills can be obtained by students through modification of learning media.

Through the application of plastic ball modification media in shot put learning, students can sharpen basic skills in shot put movement. The basic abilities referred to are the initial position and stance (holding the ball, sideways body position, body weight on the back), implementation of the motion (rotating leg swing followed by the back leg being shifted forward, the body rotates towards the throwing sector then pushes the ball at an angle 40-45°) and final position and stance (landing parallel to the left leg to maintain body balance).

CONCLUSION

It has been successful in modification of shot put learning through this research. Modifications are made by adjusting the needs of students. Therefore, it is expected to be a solution to the obstacles experienced mainly in implementing the basic shot put movement. The results indicated that the basic ability of students' shot put has been increased through the use of plastic balls as media. The modification in this study is in the form of a plastic ball, thus it can be applied by all elementary schools. In addition, this study only involved students who were at the fifth grade elementary school level who had achieved

the material of the basic movement of a shot put.

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