



## Improving Learning Outcomes in Short-Distance Running Through a Play-Based Approach for Grade V Students

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### Abstract

Sprinting requires one aspect of fitness, namely speed, which serves to support the body's ability to perform the same and repeated movements in a short time. This study aims to determine the level of effectiveness in improving the learning outcomes of 30-meter short-distance running using a play-based approach. The method used is action research, conducted in two cycles. The subjects of this study were 35 fifth-grade students from SD Negeri Manukan Wetan IV Surabaya, consisting of 13 boys and 22 girls. The study utilized pre-test and post-test data collection techniques. Before the implementation of action research, the students had an average completion score of 36 for short-distance running. This score increased to 45.71 in cycle I. In cycle II, the initial student score of 58.29 improved to 90.29, with 4 students failing to complete the test. Therefore, it can be concluded that the play-based approach has proven effective in enhancing the learning outcomes of 30-meter short-distance running for fifth-grade students at SD Negeri Manukan Wetan IV Surabaya for the 2022/2023 school year.

## INTRODUCTION

Students with good fitness scores serve as a benchmark for the success of learning outcomes. Measurable fitness standards make students appear more dynamic and productive in their learning process. Physical fitness is defined as the body's ability to perform tasks and work without significant fatigue (Darmawan, 2017).

One component of fitness is speed, which represents the body's ability to move quickly from one place to another (Rahman, Kurniawan, & Heynoek, 2020). Almost all sports and games require speed, making it a crucial aspect of physical fitness. The implementation of physical education must align with overall educational goals (Gumilang et al., 2022).

Speed involves high mobility of the central nervous system and muscular mechanisms for movement. Speed comprises three key elements: reaction time, frequency, and time. To improve speed, students need to run and turn quickly without losing their balance (Kusuma & Kardiawan, 2017). This concept aligns with agility training in general.

One sport that heavily relies on speed is athletics, one of the oldest sports practiced since ancient times to the present. Short-distance running is a discipline that emphasizes body movement and speed (Waleriańczyk & Stolarski, 2020). In this study, students will run short distances, covering up to 30 meters, in an outdoor environment. Engaging in sports activities outdoors exposes students to ambient temperatures that stimulate their sweat glands, helping maintain body temperature and preventing the risk of dehydration (Aji & Ashadi, 2019).

Sports activities at their core involve physical activities and encourage students to move and demonstrate various movements in an enjoyable atmosphere. Consistently implementing activities with a playful approach can boost students' immunity and enhance their physical fitness, making them better equipped for various activities (Haryanto & Welis, 2019).

During this phase, students can coordinate their body balance because their physical growth has reached a level of maturity (Zulvira, Neviyarni, & Irdamurni, 2021).

Given the preference of elementary school students for play, researchers have innovated to provide running materials with a playful approach, ensuring that students are happy and enjoy the activities without getting easily bored. A playful approach in teaching and learning fosters a sense of voluntariness, earnestness, and happiness (Musthofa, Subroto, & Budiana, 2016). Students of this age can develop their learning abilities under the influence of teachers during the teaching and learning process (Rahayu & Firmansyah, 2019).

In this study, researchers incorporated games involving running movements to strengthen leg muscles, such as black-green games, cats and mice, catching fish, and ninja Tic Tac Toe. Teachers are required to be innovative in selecting the right variations and methods in their teaching to facilitate students' improvement in movement skills (Wardan & Mahendra, 2017).

Elementary school is the initial formal schooling level in Indonesia. During this phase, grade V students develop social cooperation skills and play skills (Daraee, Salehi, & Fakhr, 2016). In this study, the researchers focused on play skills related to running, catching, throwing, and balance.

## METHOD

The method used in this study is Classroom Action Research (CAR). Classroom action research, commonly called Classroom Action Research, can be conducted by educational staff and teachers in the school environment where learning is implemented. The purpose of this Classroom Action Research is to enhance and improve the learning process by addressing the problems that occur in the classroom (Asrori et al., 2022).

The research's objective is to provide solutions to the problems faced by teachers, thereby ensuring that the learning process oc-

curs effectively and efficiently. Solving these classroom problems through the results of this research can make it easier to achieve the learning objectives.

In carrying out this study, the researchers aimed to plan classroom action research in the subject of physical education, incorporating a play approach. This classroom action research involves several phases in the cycle, including: (1) Planning; (2) Implementation; (3) Observation; (4) Reflection.

**Participants**

The research subjects in this study were grade V students of SD Negeri Manukan Wetan IV for the 2022/2023 academic year, totaling 35 students, comprising 13 males and 22 females.

**Sample**

For this study, the researchers employed purposive sampling data collection techniques, wherein the subjects selected had to meet specific criteria set by the researchers. The subjects in this study were grade V students in SD Negeri Manukan Wetan IV, aged between 9-12 years. In this phase of early childhood education, it is relatively short, so students must be developed optimally in line with their potential (Fatmawati, Djamas, & Rahmadani, 2021).

**Data Collection Technique**

The data collected in this study included pretest and posttest results of short-distance running. The data were measured using a stopwatch, which was regularly validated by the authorities, ensuring researchers obtained a high level of accuracy. Subjects underwent a 30-minute pretest running process before receiving treatment from the researchers in both cycles.

**Data analysis**

Following the collection of initial data, the researchers introduced a play approach in learning during the first cycle, which included the black-green game and cat-mouse. After the first cycle of learning concluded, the research-

ers conducted posttests on the research subjects using the same variables.

Upon the completion of the first cycle, the study proceeded to the second cycle. During this phase, the subjects underwent a pretest process before receiving treatment. Subsequently, the researchers conducted learning in the second cycle using a play approach, which included fishing games and ninja tic-tac-toe. After the second cycle of learning concluded, the researchers conducted posttests on the subjects to obtain the latest data following the research.

The assessment of students' short-distance running can be considered successful if they individually achieve a Learning Objective Completion Criteria (KKTP) score of 80. The research will be deemed successful if 75% of all students in the class reach the required completion criteria. The assessment instruments are outlined in Table 1.

**Table 1.** Instruments Assessment

Score	Boy time	Girl time
90-100 (A)	> 5.50"	> 5.80"
80-89 (B)	5.60-6.10"	5.90-6.60"
70-79 (C)	6.20-6.90"	6.70-7.80"
60-69 (D)	7.00-8.60"	7.90-9.20"
<59 (E)	< 8.60"	< 9.30"

Source: Depdiknas Puskesjasrek

**RESULTS AND DISCUSSION**

The profile of the research subjects will be shown in table 2 :

**Table 2.** Male and Female Subject Profiles

Number	Profile	Sum
1	Boy	13
2	Girl	22

Based on Table 2, it can be concluded that the research subjects amounted to 35 people, consisting of 13 male students and 22 female students.

The condition of students before learning short-distance running in grade V students of SD Negeri Manukan Wetan IV can be assessed through the pre-test of a 30-meter short-distance running. The implementation of the play approach treatment is conducted by the researchers by selecting types of games that include elements of leg muscle strength and running speed to support the modified short-distance running learning in an enjoyable format. These games include Black-Green, Cat and Mouse, Fish Netting, and Ninja Tic Tac Toe games.

The choice of these games is based on the characteristics of active grade V students during outdoor learning. The low completion of learning objectives in grade V students of SD Negeri Manukan Wetan is attributed to (1) monotonous teaching and a lack of variation in the material, which diminishes students' interest in understanding the content, and (2) students not recognizing the importance of leg muscle strength to support short-distance running.

The initial condition of students when completing the pretest is in table 3.

**Table 3.** Grade-level Pretest for students

No.	Gender	Time	Score	Value
1	G	8.95	2	40
2	G	12.32	1	20
3	G	9.08	2	40
4	G	8.16	2	40
5	G	9.86	1	20
6	B	7.87	2	40
7	G	9.08	2	40
8	G	8.86	2	40
9	G	8.95	2	40
10	G	10.28	1	20
11	B	8.30	2	40
12	B	7.57	3	60
13	G	9.87	1	20
14	B	9.08	2	40
15	B	7.84	2	40
16	G	9.08	2	40

No.	Gender	Time	Score	Value
17	G	10.07	1	20
18	B	9.08	2	40
19	G	9.28	1	20
20	G	8.30	2	40
21	B	8.75	2	40
22	B	8.74	2	40
23	B	9.08	2	40
24	G	9.03	2	40
25	B	9.08	2	40
26	G	8.80	2	40
27	B	7.57	3	60
28	B	9.08	2	40
29	G	9.02	2	40
30	G	10.02	1	20
31	G	9.06	2	40
32	G	9.51	1	20
33	B	8.61	2	40
34	G	11.02	1	20
35	G	8.60	2	40
<b>Rata-rata</b>				<b>36</b>

Based on Table 3, it can be concluded that the average score of Grade V students at SD Negeri Manukan Wetan on the 30-meter short-distance running material is 36, whereas the Learning Objectives Completeness Criteria (LOCC) is 80. However, when the pretest was conducted, it showed that none of the students achieved learning completeness. The learning outcomes in cycle 1 are described in Tables 4 and 5.

**Table 4.** Pre-test 1

Range	Value	Percent-age	Sum	Information
5	0	0%	0	Complete
4	0	0%	0	Complete
3	2	5.71%	35	Uncomplete
2	24	68.57%	35	Uncomplete
1	9	25.71%	35	Uncomplete
<b>Total</b>	<b>35</b>	<b>100%</b>		
<b>Aver-age</b>	<b>36</b>	<b>36</b>		

**Table 5.** Post-test 1

Range	Value	Percent-age	Sum	Information
5	0	0%		Complete
4	0	0%	0	Complete
3	7	20%		Uncomplete
2	25	71.43%	35	Uncomplete
1	3	8.57%		Uncomplete
Total	35	100%		
Average	45,71	45,71		

Based on Tables 4 and 5, the average posttest score for Grade V students at SD Negeri Manukan Wetan IV on the 30-meter short-distance running material was 45.71, while the Learning Objectives Completeness Criteria (LOCC) were 80. The data obtained in cycle one showed that although no students met the complete criteria, the learning outcomes with a play approach led to an increase in the number of students who came close to completeness, from 5.71% to 20%. The learning outcomes in cycle 2 will be shown in Tables 6 .

**Table 6.** Pre-test 2

Range	Value	Percent-	Sum	Information
5	0	0%		Complete
4	1	2.86%	1	Complete
3	23	65.71%		Uncomplete
2	10	28.57%	34	Uncomplete
1	1	2.86%		Uncomplete
Total	35	100%		
Average	58,29	58,29		

Based on Tables 6 and 7, researchers obtained an average pretest score of 58.29 for the 30-meter short distance running, while the posttest score was 90.29. With these results, researchers can conclude their research in cycle two because the completeness of all students is more than 75% on the short-distance running

material, reaching 88.78%. This demonstrates the effectiveness of this study in improving leg muscle strength and running speed in physical education learning for Grade V students at SD Negeri Manukan Wetan IV for the 2022/2023 school year. Here is the table 7 :

**Table 7.** Post-test 2

Range	Value	Percent-age	Sum	Information
5	18	51.43%		Complete
4	13	37.14%	31	Complete
3	3	8.57%		Uncomplete
2	1	2.86%	4	Uncomplete
1	18	0%		Uncomplete
Total	35	100%		
Average	90,29	90,29		

Short distance running, as studied here, is a type of movement done at full speed and relies on leg muscle strength. The winner in short-distance running is determined by the student who crosses the finish line first. Each student's running speed varies, influenced by factors such as posture and step frequency in short-distance running movements (Putra et al., 2020).

The results from the first cycle of research show a significant improvement in students' conditions. During the pretest, students had an average score of 36. However, with the play-based approach to learning, their scores increased to an average of 45.71. This indicates that the warm-up methods using a play approach have been effective in improving learning outcomes.

In cycle I, researchers implemented the black-green warm-up method, which contains elements supportive of learning short-distance running. This approach has made students more active in running movements and more enthusiastic about learning (Azhar, 2021).

Additionally, during the first cycle of research, researchers introduced play-based learning using games like cat and mouse, which

involve dominant running motions and help strengthen leg muscles. Traditional cat and mouse games also contribute to students' social and character development through play-based learning (Afifah, Prasetyo, & Ramadhan, 2018).

During the first cycle's implementation, researchers observed a lack of enthusiasm among students for stiff running movements. This lack of motivation contributed to less-than-optimal results in the first cycle, as students found running to be a boring activity (Asrori, Wire, Suratno, & Adi, 2022).

In cycle I, although students showed improvement due to the play-based approach, only two students achieved scores above 70. After implementing the action in the first cycle of class action research, this number increased to seven students. Learning outcomes are a result of the teaching and learning process designed by teachers (Tauhid, Aufan, & Siregar, 2020).

Between cycle I and cycle II, students had a 24-hour break to allow their bodies to recover. This phase had several benefits, including rejuvenating damaged cells, reducing lactic acid levels, and improving mental readiness for the next activity (Aji & Ashadi, 2019).

In cycle II, students showed further improvement in the second pretest, with an average score of 58.29. After receiving treatment, their posttest scores for short distance running increased to 90.29. This emphasizes that the play-based approach, combined with appropriate game selection, effectively supports classroom learning (Sobariah & Santana, 2019).

In cycle II, researchers included the "catching fish" game, chosen for its elements of motion, speed, and reaction. This game aimed to make students more active, enhance their kinesthetic skills, and strengthen their leg muscles (Sobariah & Santana, 2019).

Researchers also introduced the "ninja tic tac toe" game in cycle II, which was designed to improve power, agility, and speed of leg muscles supporting the learning of 30-meter short-distance running for Grade V students

(Sobariah & Santana, 2019).

To address the lack of seriousness observed in students during the first cycle's short-distance running learning, researchers introduced external motivation for students during the second cycle, which involved running in pairs. This approach aimed to create a sense of competition among peers and maximize student enthusiasm for learning. Pair training was introduced to make the learning process more engaging and enjoyable (Wijaya et al., 2021).

As a result of the implementation of cycle II, 31 students achieved complete scores, indicating more than 75% of students showed significant improvement. The majority of students reached a completeness score of 88.78%, an increase from the previous phase's average score of 90.29. This research can now be concluded.

Finally researcher found that in Cycle I, efforts to increase the speed of short-distance running with a play-based approach proved effective in helping students improve learning outcomes. However, without additional motivation, students tend not to be optimal in their participation. In Cycle II, students were much more active because the chosen game type stimulated a competitive spirit. As a result, the improvements in learning outcomes were much more optimal than in the previous cycle. This demonstrates that with a game-based approach and the addition of more motivation in learning, it has proven to be effective in maximizing learning outcomes.

## CONCLUSION

The conclusion of the research it can be concluded that the play-based approach has proven effective in enhancing the learning outcomes of 30-meter short-distance running for fifth-grade students at SD Negeri Manukan Wetan IV Surabaya for the 2022/2023 school year.

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