


## LAMPIRAN-LAMPIRAN

### Lampiran 1 Surat Keterangan Pembimbing



**KEPUTUSAN**  
**DIREKTUR UNIVERSITAS PENDIDIKAN INDONESIA KAMPUS SUMEDANG**  
 Nomor : 82 / UN 40.C2 / TD.06 / 2025

**TENTANG**  
**PENGANGKATAN PEMBIMBING PENULISAN ARTIKEL JURNAL**  
**DIREKTUR UNIVERSITAS PENDIDIKAN INDONESIA KAMPUS SUMEDANG**

Memperhatikan : Surat Permohonan Ketua Program Studi PGSD Penjas UPI Kampus Sumedang Tanggal 04 November 2024 tentang usul pengangkatan Pembimbing Penulisan Artikel.

Mengingat : 1. UU Perguruan Tinggi No. 12 tahun 2012  
 2. Peraturan Pemerintah No.4 Tahun 2014 tentang Penyelenggaraan Pendidikan Tinggi  
 3. Peraturan Rektor UPI No. 40 Tahun 2024 Tentang Pedoman Penyelenggaraan Pendidikan UPI Tahun 2024  
 4. Peraturan Rektor UPI No. 7867/UN40/HK/2021 Tentang Pedoman Penulisan Karya Ilmiah UPI Tahun 2022  
 5. Keputusan Rektor UPI Nomor 3/UN40/KP.09.04/2025 tanggal 3 Januari 2025 Tentang Pemberhentian dan Pengangkatan Direktur, Wakil Direktur No.1342/UN40/KP.09.04/2023 Tanggal 27 Juli 2023, dan Nomor. 1311/UN40/KP.09.04/2023 tentang pengangkatan ketua prodi di Lingkungan UPI Kampus Daerah masa bakti 2023-2027

Menimbang : Untuk pelayanan bimbingan penulisan Artikel Jurnal dipandang perlu untuk diterbitkan Surat Keputusan.

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- Mengangkat dosen yang namanya tercantum di bawah ini sebagai pembimbing dengan urutan sebagai berikut :
 


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Program	: PGSD Pendidikan Jasmani

Jalur Penyelesaian Studi Yang dipilih yaitu Artikel Jurnal dengan Judul:  
**EFEKTIVITAS MODIFIKASI LATIHAN UNTUK MENINGKATKAN KETERAMPILAN KONTROL BOLA DI EKSTRAKURIKULER FUTSAL DI SEKOLAH DASAR KABUPATEN SUMEDANG**
- Kepada para pembimbing Artikel diberikan tunjangan sesuai dengan ketentuan yang berlaku.


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Ditetapkan di : Sumedang  
 Pada tanggal : 06 Januari 2025  
 Direktur



Dr. Indra Safari, M.Pd  
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## Lampiran 2 Surat Permohonan Izin Penelitian


**KEMENTERIAN PENDIDIKAN TINGGI, SAINS,  
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Nomor : B-316/UN40.C2/PT.01.04/2025  
 Lampiran. : -  
 Hal : **Permohonan Ijin Penelitian**

Kepada :  
**Yth. Kepala SDN Tanjungsiang Kabupaten Sumedang**  
 Di  
 Tempat



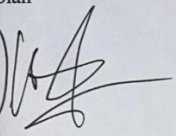
Dengan hormat, kami beritahukan bahwa:  
 Nama : Citra Ayu Lestari  
 Nim : 2100862  
 Program Studi : S I PGSD Penjas

Bermaksud akan mengadakan Penelitian pada :  
**Peserta Didik Ekstrakurikuler Futsal**  
 Untuk Keperluan Penyusunan Skripsi dengan Judul:  
**"Efektivitas Modifikasi Latihan Untuk Meningkatkan Keterampilan Kontrol Bola di  
Ekstrakurikuler Futsal di Sekolah Dasar Kabupaten Sumedang"**

Demikian permohonan ini kami sampaikan, atas perhatiannya kami ucapkan  
 terima kasih.

Sumedang, 21 Januari 2025  
 Direktur,  
  
**Dr. Indra Safari, M.Pd.**  
**NIP. 197709022008011016**

### Lampiran 3 Surat Balasan Izin Penelitian

	<p align="center"><b>PEMERINTAH DAERAH KABUPATEN SUMEDANG</b>  <b>DINAS PENDIDIKAN</b>  <b>SEKOLAH DASAR NEGERI TANJUNGSANG</b>  <b>KECAMATAN CIMANGGUNG</b></p>
	<p align="center"><small>Alamat : Jln Pangsor No 03 Desa Sukadana Kecamatan Cimanggung, Sumedang Kode Pos 45364</small></p>
<p align="center"><b><u>SURAT KETERANGAN</u></b>          Nomor : 014/SD.027/IV/2025</p>	
<p>Yang bertanda tangan di bawah ini :</p>	
Nama	: WAHYU IMAN NURDIN,S.Pd
Nip	: 19850730 201412 1 001
Jabatan	: Kepala Sekolah
<p>Dengan ini menerangkan bahwa:</p>	
Nama	: Citra Ayu Lestari
Nim	: 2100862
Jurusan	: PJOK
Universitas	: Universitas Pendidikan Indonesia
<p>Bahwa yang bersangkutan benar-benar telah selesai melaksanakan Penelitian dengan judul:  <b>"Efektivitas ModifikasiLatihan Untuk Meningkatkan Kontrol Bola Di Ekstakurikuler          Futsal Sekolah Dasar Kabupaten Sumedang"</b></p>	
<p>Demikian surat keterangan ini dibuat untuk dipergunakan seperlunya.</p>	
<p align="right">Cimanggung, 14 April 2025</p>	
<p align="right">Kepala Sekolah</p>	
<p align="center">  </p>	
<p align="center">   <b>WAHYU IMAN NURDIN,S.Pd</b>          NIP. 19850730 201412 1 001       </p>	



## Lampiran 4 Monitoring Bimbingan

[illegible]

### Lampiran 5 Hasil Pretest-Posttest

Kelompok Kontrol			
No	Nama Siswa	Pretest	Posttest
1.	Adiyaksa	7	14
2.	Aldi	8	14
3.	Indah	9	13
4.	Revan	10	16
5.	Reva	10	13
6.	Rafi	10	14
7.	Risky M	10	13
8.	Naufal	11	23
9.	Aqmal	11	15
10.	Kansa	12	18
11.	Dika	12	14
12.	Fajar ahmad	12	12
13.	Alif	13	22
14.	Aji	13	21
15.	Syahadat	14	12

Kelompok Eksperimen			
No	Nama Siswa	Pretest	Posttest
1.	Nur	8	15
2.	Reno	8	12
3.	Kayna	9	17
4.	Rizki	10	19
5.	Azzam	10	15
6.	Dean	10	12
7.	Luthfi	11	19
8.	Rahma	11	17
9.	Aldy R	11	15
10.	Zidan	12	20
11.	Nurazizah	12	16
12.	Hisyam	12	13
13.	Azka	13	19
14.	Reyhan	13	18
15.	Fajar Rizki	14	19

## Lampiran 6 Hasil SPSS 26 for Windows

### 1. *Descriptive Statistics* Pretest-Posttest

	N	Minimum	Maximum	Mean	Std. Deviation
Pretest Experimen	15	8	13	10.87	1.807
Posttest Experimen	15	13	23	18.07	2.840
Pretest Kontrol	15	9	14	10.80	1.781
Posttest Kontrol	15	12	16	13.60	1.298
Valid N (listwise)	15				

### 2. Hasil Uji Normalitas

	Shapiro-Wilk			Keterangan
	Statistic	df	Sig.	
Pretest Eksperimen	.902	15	.103	Normal
Posttest Eksperimen	.982	15	.983	Normal
Pretest Kontrol	.935	15	.323	Normal
Posttest Kontrol	.908	15	.128	Normal

### 3. Tabel Hasil Uji *Paired Simple T-Test*

		t	df	Sig. (2-tailed)
Pair 1	Pretest Experimen - Posttest Experimen	-14.146	14	.000
Pair 2	Pretest Kontrol - Posttest Kontrol	-9.459	14	.000

### 4. Tabel 4.9 Hasil Uji Homogenitas

	Levene Statistic	df1	df2	Sig.
Based on Mean	2.654	1	28	.115
Based on Median	2.299	1	28	.141
Based on Median and with adjusted df	2.299	1	23.172	.143
Based on trimmed mean	2.510	1	28	.124

**5. Tabel 4.10 Hasil Uji *Independent T-Test***

	f	Sig.	t	df
Equal variances assumed	5.672	.024	5.540	28

**6. Tabel 4.11 Uji N-Gain**

	Kelompok		Statistic	Keterangan
N Gain	Eksperimen	Mean	0,8091	Tinggi
	Kontrol	Mean	0,3033	Rendah

### Lampiran 7 Program Latihan

Pertemuan	Deskripsi Kegiatan	Tempat Pelaksanaan	Waktu Pelaksanaan
1	1. Pendahuluan (5 menit) <ul style="list-style-type: none"> <li>a. Doa</li> <li>b. Pemanasan statis</li> <li>c. Pemanasan dinamis</li> </ul> 2. Kegiatan inti (50 menit) <ul style="list-style-type: none"> <li>a. Test awal (tes passing-stopping setiap anak melakukan passing stopping selama 30 detik )</li> </ul> 3. Penutup (5 menit) <ul style="list-style-type: none"> <li>b. Pendinginan</li> </ul>	Gor futsal laput	60 menit
2	1. Pendahuluan (5 menit) <ul style="list-style-type: none"> <li>a. Doa</li> <li>b. Pemanasan statis</li> <li>c. Pemanasan dinamis</li> </ul> 2. Kegiatan inti (20 menit) <ul style="list-style-type: none"> <li>a. Permainan kucing tikus dengan membuat lingkaran satu kali kontrol kaki lanjut passing kepada rekannya.</li> </ul> 3. Penutup (5 menit) <ul style="list-style-type: none"> <li>a. Pendinginan</li> </ul>	Gor futsal laput	30 menit
3	1. Pendahuluan (5 menit) <ul style="list-style-type: none"> <li>a. Doa</li> <li>b. Pemanasan statis</li> <li>c. Pemanasan dinamis</li> </ul> 2. Kegiatan inti (20 menit) <ul style="list-style-type: none"> <li>a. Permainan kucing tikus dengan membuat lingkaran dan ketika menerima bola kontrol dahulu dan di dribbling dahulu kemudian di passing kepada rekannya.</li> </ul> 3. Penutup (5 menit) <ul style="list-style-type: none"> <li>a. Pendinginan</li> </ul>	Gor futsal laput	30 menit
4	1. Pendahuluan (5 menit) <ul style="list-style-type: none"> <li>a. Doa</li> <li>b. Pemanasan statis</li> <li>c. Pemanasan dinamis</li> </ul> 2. Kegiatan inti (20 menit)	Gor futsal laput	30 menit

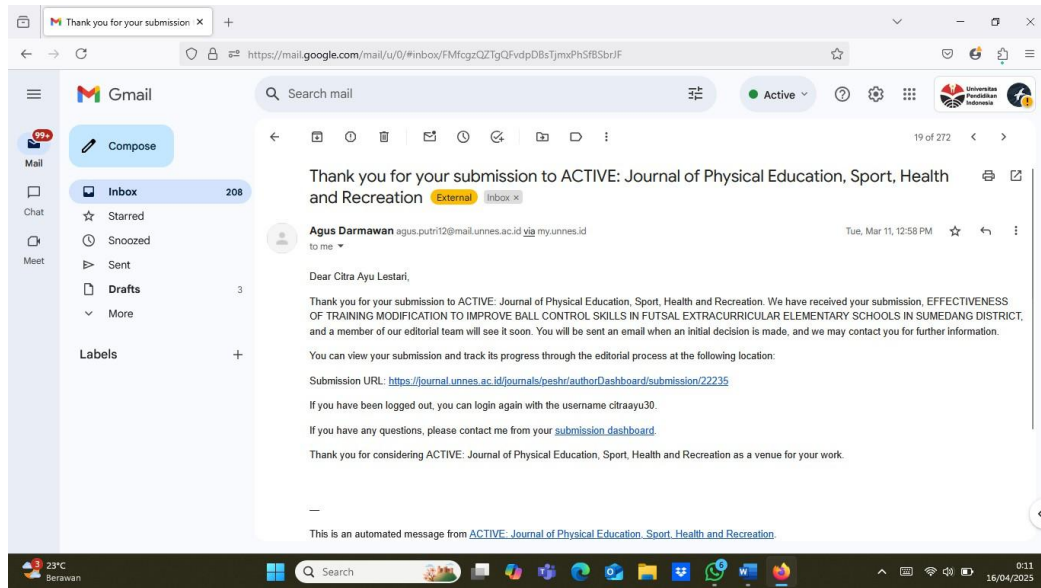


	a. Permainan kucing tikus dengan menggunakan setengah lapangan dan bebas bergerak. 3. Penutup (5 menit) a. Pendinginan		
5	1. Pendahuluan (5 menit) a. Doa b. Pemanasan statis c. Pemanasan dinamis 2. Kegiatan inti (20 menit) a. Permainan kucing tikus menggunakan seluruh lapangan dan bebas bergerak 3. Penutup (5 menit) a. Pendinginan	Gor futsal laput	30 menit
6	1. Pendahuluan (5 menit) a. Doa b. Pemanasan statis c. Pemanasan dinamis 2. Kegiatan inti (20 menit) a. Permainan kucing tikus dengan peraturan apabila ada kucing yang berhasil merebut bola dari tikus ia ikut menjadi kucing (kucing bertambah sampai tikus tersisa 1 orang) 3. Penutup (5 menit) a. Pendinginan	Gor futsal laput	30 menit
7	1. Pendahuluan (5 menit) a. Doa b. Pemanasan statis c. Pemanasan dinamis 2. Kegiatan inti (20 menit) a. Permainan kucing tikus dengan membuat lingkaran satu kali kontrol kaki lanjut passing kepada rekannya. 3. Penutup (5 menit) a. Pendinginan	Gor futsal laput	30 menit
8	1. Pendahuluan (5 menit) a. Doa b. Pemanasan statis		

	<ul style="list-style-type: none"> <li>c. Pemanasan dinamis</li> <li>2. Kegiatan inti (20 menit)               <ul style="list-style-type: none"> <li>a. Permainan kucing tikus dengan membuat lingkaran dan ketika menerima bola kontrol dahulu dan di dribbling dahulu kemudian di passing kepada rekannya</li> </ul> </li> <li>3. Penutup (5 menit)               <ul style="list-style-type: none"> <li>a. Pendinginan</li> </ul> </li> </ul>	Gor futsal laput	30 menit
9	<ul style="list-style-type: none"> <li>1. Pendahuluan (5 menit)               <ul style="list-style-type: none"> <li>a. Doa</li> <li>b. Pemanasan statis</li> <li>c. Pemanasan dinamis</li> </ul> </li> <li>2. Kegiatan inti (20 menit)               <ul style="list-style-type: none"> <li>a. Permainan kucing tikus dengan menggunakan setengah lapangan dan bebas bergerak.</li> </ul> </li> <li>3. Penutup (5 menit)               <ul style="list-style-type: none"> <li>a. Pendinginan</li> </ul> </li> </ul>	Gor futsal laput	30 menit
10	<ul style="list-style-type: none"> <li>1. Pendahuluan (5 menit)               <ul style="list-style-type: none"> <li>a. Doa</li> <li>b. Pemanasan statis</li> <li>c. Pemanasan dinamis</li> </ul> </li> <li>2. Kegiatan inti (20 menit)               <ul style="list-style-type: none"> <li>a. Permainan kucing tikus menggunakan seluruh lapangan dan bebas bergerak</li> </ul> </li> <li>3. Penutup (5 menit)               <ul style="list-style-type: none"> <li>a. Pendinginan</li> </ul> </li> </ul>	Gor futsal laput	30 menit
11	<ul style="list-style-type: none"> <li>1. Pendahuluan (5 menit)               <ul style="list-style-type: none"> <li>a. Doa</li> <li>b. Pemanasan statis</li> <li>c. Pemanasan dinamis</li> </ul> </li> <li>2. Kegiatan inti (20 menit)               <ul style="list-style-type: none"> <li>a. Permainan kucing tikus dengan peraturan apabila ada kucing yang berhasil merebut bola dari tikus ia ikut menjadi kucing (kucing bertambah sampai tikus tersisa 1 orang).</li> </ul> </li> <li>3. Penutup (5 menit)</li> </ul>	Gor futsal laput	30 menit

	a. Pendinginan		
12	1. Pendahuluan (5 menit) a. Doa b. Pemanasan statis c. Pemanasan dinamis 2. Kegiatan inti (50 menit) b. Test akhir (tes passing- stopping setiap anak mela5ukan passing stopping selama 30 detik ) 3. Penutup (5 menit) a. Pendinginan	Gor futsal laput	60 menit

## Lampiran 8 Email Koresponding



## Lampiran 9 LoA


**KEMENTERIAN RISET, TEKNOLOGI DAN PENDIDIKAN TINGGI**  
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**LETTER OF ACCEPTANCE/PUBLICATION**  
**FOR THE JOURNAL OF PHYSICAL EDUCATION, SPORT, HEALTH AND RECREATIONS**  
**OF THE PHYSICAL EDUCATION, SPORT, HEALTH, AND RECREATIONS**  
**PROGRAM, FACULTY OF SPORTS SCIENCE, UNNES**  
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The undersigned below:

Name : Agus Darmawan, S.Pd., M.Pd.  
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 Position : Chief Editor  
 Faculty : Faculty of Sport Science, Universitas Negeri Semarang

In this regard, declare the acceptance and the publication of (\*) scientific articles in the *Journal Of Physical Education, Sport, Health And Recreations* by the Physical Education, Sport, Health, and Recreations, Faculty of Sport Science, Universitas Negeri Semarang on Volume 14 No 1 2025 under the name of:

Name : Citra Ayu Lestari<sup>1)</sup>, Entan Saptani<sup>2)</sup>, Muhammad Nur Aldi<sup>3)</sup>  
 Institution : <sup>1,2,3</sup>Elementary Education Physical Education Teacher Education, Indonesian University of Education, West Java, Indonesia.

Title of Article: Effectiveness of Training Modification to Improve Ball Control Skills in Futsal Extracurricular Elementary Schools in Sumedang District.

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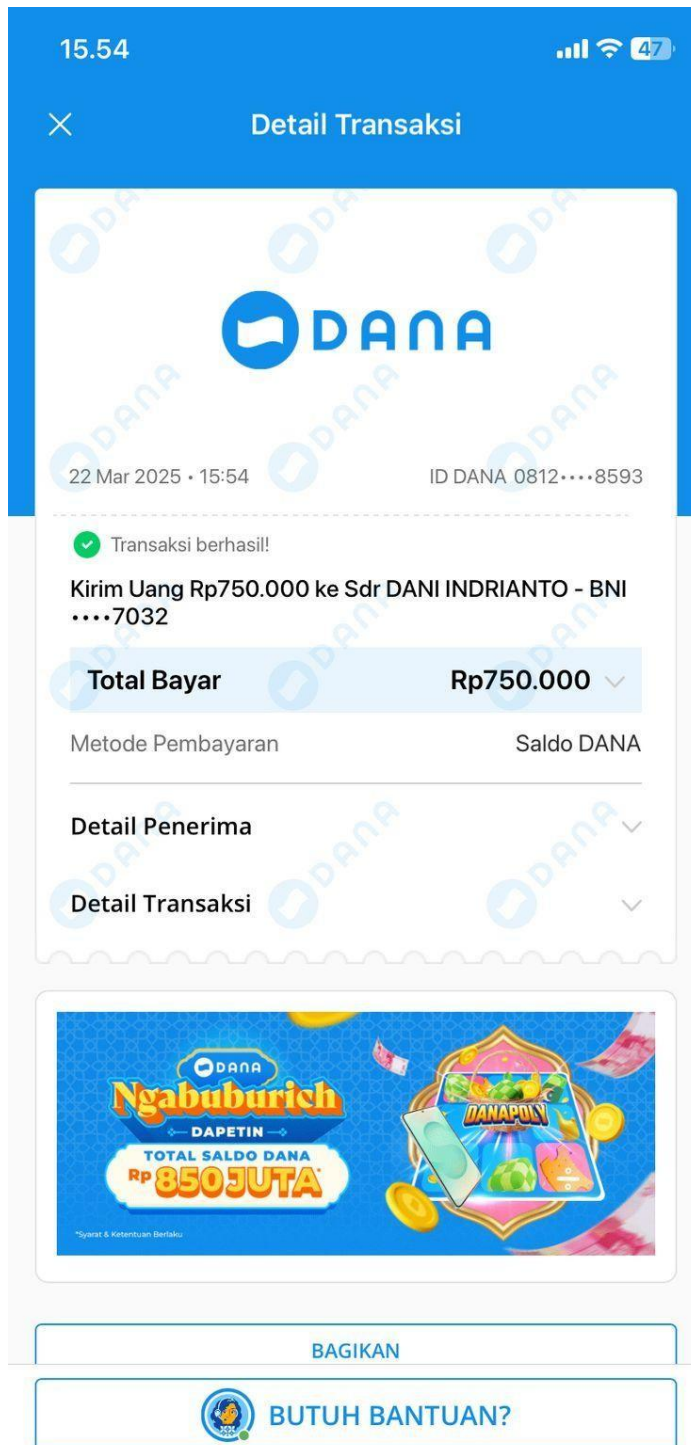
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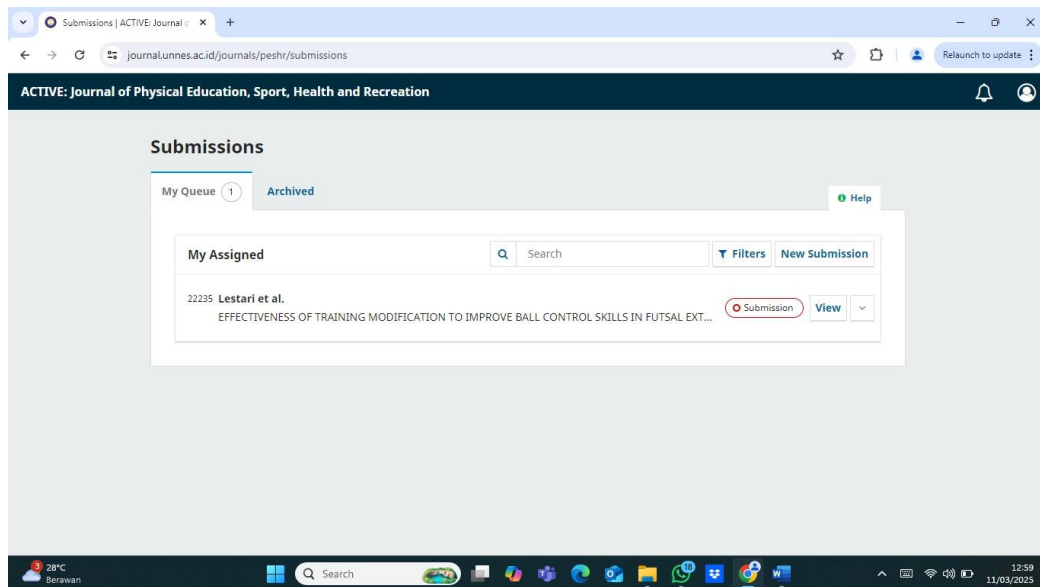
  
 Agus Darmawan, S.Pd., M.Pd.  
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PS.  
 \*) Cross the unnecessary ones

**Lampiran 10 Bukti Pembayaran Artikel**



## Lampiran 11 Submit Artikel.



## Lampiran 12 Artikel



14 (1) (2025) 153 - 158

**Journal of Physical Education, Sport,  
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**Effectiveness of Modified Exercises to Improve Ball Control Skills in Elementary School Futsal Extracurricular Students in Sumedang Regency**

**Citra Ayu Lestari<sup>1</sup>, Entan Saptani<sup>2</sup>, Muhammad Nur Alif<sup>3✉</sup>**

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**Keywords:**  
Futsal; Ball Control Skills;  
Modification of Training  
Methods; Cat-Mouse Game.

**Abstract**

This study aims to analyze the effectiveness of training modification using cat-mouse games in improving ball control skills in elementary school futsal extracurricular participants in Sumedang Regency. Ball control is an important basic technique in futsal, but many players still have difficulty mastering it. Therefore, a more interactive and effective training method is needed. This study used an experimental method with a pre-test and post-test design. The research sample consisted of two groups, namely the experimental group that received training using cat-mouse games and the control group that underwent conventional training. Data were collected through passing-controlling tests before and after treatment, then analyzed using statistical tests, including normality tests, homogeneity tests, paired sample t-tests, independent t-tests, and N-Gain tests. The results showed that there was a significant increase in ball control skills in the experimental group compared to the control group. The N-Gain test analysis showed that the experimental group obtained an average score of 0.8091 (high category), while the control group only obtained an average score of 0.3033 (low category). The results of this study indicate that the cat-mouse game is one of the effective training methods in improving ball control skills in futsal games. The conclusion of this study is that the cat-mouse game can be used as an alternative interesting and effective training method in improving ball control skills in beginner futsal players. The results of this study contribute to the development of sports learning strategies, especially in the context of futsal games at elementary school level.

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**How to Cite**

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## INTRODUCTION

Children in school really like futsal. Extracurricular activities in school will provide opportunities for students to further develop their abilities and potential. (P. Ginting et al., 2022) This activity is carried out outside of school hours and aims to channel students' interests and talents in certain fields, such as futsal. Extracurricular activities provide opportunities for students to develop their interests, talents, and creativity in certain fields. (Purnama et al., 2022) This is also beneficial because it helps students avoid dangerous things around them, such as the prevalence of drug abuse and promiscuity. (Zainuddin & Yusuf, 2020).

Globally, the term "futsal" is used for indoor soccer games. The term comes from the words "futbol" or "futebol", meaning soccer, and "salon" or "sala", meaning indoors. (Alhababy, 2016) Futsal is played by two teams, each consisting of five players. In addition to the five main players, futsal also has reserve players. Futsal relies more on feet and skill, where the goal is to get the ball into the opponent's goal while keeping your own goal from being penetrated by the opposing players. Futsal has several characteristics that distinguish it from other types of sports, especially because it requires fast and agile footwork. (Hamdani et al., 2022).

Every futsal player must have strong basic techniques. Because it is very important to become a great player or athlete, every player or athlete must learn the basics of the futsal game. The goal of the futsal game depends heavily on the player's ability to understand the basics of the game. Basic techniques are the first way to achieve the goal. (Adi Surya et al., 2019) Receiving the ball, kicking, passing the ball, dribbling the ball, heading the ball, holding the ball, and blocking the ball are the basic techniques for playing futsal. (Rohman et al., 2021). Passing the ball, shooting, ducking, heading the ball, and dribbling are basic futsal techniques. Passing is one of the basic techniques in futsal, where passing is the movement of passing the ball to a teammate. Stopping is a basic technique in futsal, where stopping is the movement of stopping the ball passed by a teammate. While dribbling is a basic futsal technique, where the purpose of dribbling is to move the ball from one place to another. Heading is a basic futsal technique performed by players by using their heads to pass or score goals into the opponent's goal. While shooting is a basic futsal technique performed by players by kicking the ball directed at the opponent's goal. (Hamdani et

al., 2022).

Of the many basic futsal techniques, ball control is one of the basic futsal techniques used in conjunction with the technique of kicking the ball. The feet, thighs, chest, and head are some of the body parts that can control the ball. (Apriantia, 2022) Because the flat field causes the ball to roll quickly, the dominant control movement is to use the sole of the foot to hold the ball. Therefore, ball control must be possessed by the player. (Norifansyah et al., 2024). If the ball is far from the feet, then the opponent can easily grab it. To stop the ball, it is very important to pay attention to the direction the ball is coming from, maintain body balance, and use the soles of the feet to touch or hold the ball so that it remains still and easy to control. (SS Ginting et al., 2019) Knowing how to stop the ball in futsal is very important. We will have difficulty doing other movements such as dribbling or kicking the ball if we cannot stop it well.

Based on the results of observations on November 23, 2024 in one of the extracurricular activities in Sumedang Regency, the basic techniques of passing, dribbling, and shooting have been implemented quite well, but many children still have difficulty in mastering the technique of controlling the ball properly. In futsal, athletes should control the ball using the soles of their feet. However, in reality, many players do not control the ball using the soles of their feet properly so that the ball often comes loose and bounces in an unwanted direction. This can result in the risk of losing the ball, difficulty in opening opportunities, passing, and the ball being easily taken by the opponent. The technique of controlling the ball with the soles of shoes in futsal is very important so it must be mastered by every player. (Source: AFP).

Knowing how to stop the ball in futsal is very important, because if we can't stop it well, it will be difficult to do other movements such as dribbling or kicking the ball. One way that an athlete can optimize their performance is by practicing regularly. Even very talented athletes will not be able to achieve their best performance if they do not practice regularly. Conversely, someone who is less talented in a particular sport can achieve their best performance if they practice regularly. (Daniel et al., unknown).

Players often experience low skill learning outcomes, because the training methods used so far are often monotonous and less motivating for players. Therefore, to improve ball control skills, a more interesting, interactive, and effective training method is needed. The playing method is a

learning method that can be quickly accepted by beginners because it emphasizes improving creativity, challenge, fun, motivation, and solutions to problems (Haris et al., 2020). One method that can be used is to modify the technique by playing the traditional game of "cat and mouse".

Because Cat-and-mouse game involves active movement, quick decision making, and interaction between players, which is very relevant to be applied in futsal games. By changing the exercises carried out using this game to emphasize ball control, such as keeping the ball from the "cat" while moving in a certain area, players can improve their concentration, agility, and ball control skills in a game environment that is similar to real conditions. For the cat-and-mouse game, there are simple rules. This game is usually played by children in the yard or field during recess or after school. It is hoped that this method will not only improve the technical abilities of the players, but also make training more fun. Hopefully, this can improve the learning outcomes and motivation of the players as a whole.

Related to the above problems, in this study the author will explain about ball control skills with the cat-mouse game training method. The author takes the title "Effectiveness of Modification Training to Improve Ball Control Skills in Futsal Extracurricular Activities in Elementary Schools in Sumedang Regency".

This study focuses on the effectiveness of training modification in improving ball control skills in elementary school futsal extracurricular activities in Sumedang Regency. Previous research by (Aminullah et al., 2022) shows a positive influence of traditional games on the speed of Special Olympics Indonesia futsal athletes. This finding provides a basis that traditional games such as "cat-mouse" can be used as an effective training method to improve athlete skills, especially in terms of speed.

Although previous studies have discussed several things related to the cat-mouse game in the context of futsal, there has been no study that specifically discusses the effectiveness of this game in improving ball control. This is important because ball control is one of the crucial basic techniques in futsal. Based on observations in the field, many students have difficulty in mastering ball control techniques properly, causing them to lack good ball control techniques. has the potential to hinder their performance while playing.

Seeing these shortcomings, this study aims to fill these shortcomings by focusing on modifying training using cat-mouse games. This method is expected to create a more interesting and

interactive training atmosphere, so that students can learn in a fun way while improving ball control skills. Cat-mouse games involve active movements and quick decision making, which are very relevant to futsal game situations.

Through This study is expected to obtain useful data and information regarding the effect of training modification on ball control skills. The results of this study not only contribute to the development of basic futsal techniques among students, but also provide new insights for coaches and educators in designing more effective and interesting training programs. Thus, this study is expected to improve the quality of sports learning in elementary schools and help young athletes achieve their maximum potential in the field of futsal.

Based on this background, In futsal, athletes must control the ball using the soles of their feet. However, in reality, many players fail to control the ball using the soles of their feet properly, so the ball often comes loose and bounces in an unwanted direction. This can result in the risk of losing the ball, difficulty in opening opportunities, passing, and the ball being easily taken by the opponent.

The novelty in this research lies in the application of the cat-mouse game as an innovative training method to improve ball control skills in futsal games.

The purpose of this study was to identify and analyze the effect of cat-mouse game on ball control skills in futsal. This study aims to explore the extent to which cat-mouse game can help players improve their ability to control the ball, especially in dynamic and stressful situations. In addition, this study also aims to assess the effectiveness of cat-mouse game as a training method in improving ball control skills. Thus, this study will provide a deeper understanding of the role of cat-mouse game in the development of ball control techniques, as well as determine whether this game can be effectively applied in training to improve this skill in the context of futsal training.

The cat-mouse game is considered to have a significant influence on improving the ball control ability of futsal players. In futsal, ball control using the soles of the feet is very important to maintain ball control and build an attack strategy. However, many players still have difficulty in controlling the ball well, so an effective training method is needed. The cat-mouse game as an interactive training method involves game situations that require players to make quick decisions and control the ball under pressure. Thus, this method is expected to improve the ball control

ability of futsal players.

## METHODS

This study used an experimental method with a quasi-experimental design with a two-group pre-test and post-test design. The research sample was divided into two groups, namely the experimental group that received training using the cat-mouse game and the control group that did not receive treatment.

Participants in this study were members of the futsal extracurricular. The sampling technique used is non-probability or non-random sampling, namely non-random sampling with a purposive sampling type, two groups are taken that have the same characteristics, namely the control group and the experimental group.

The instrument used in this study was a passing and ball control test (Passing-Controling) from Hulfian (2022) which has high validity and moderate reliability.

### This analysis data uses:

Normality test is a test conducted to determine whether the data obtained is normally distributed. Data normality test with the Shapiro-Wilk formula using the SPSS program. The criteria used to determine whether the data is normally distributed is if  $p > 0.05$  then the data is said to be normal, but if  $p < 0.05$  then the data is said to be abnormal.

One way to test a hypothesis is the paired t-test, which uses non-independent (paired) data. Paired cases usually involve one subject (research object) receiving two different types of treatments. Although using the same subject, researchers still obtain two types of sample data, namely data from the first and second treatments.

The homogeneity test, which is performed after the normality test, shows that the data are normally distributed. The t-test and ANOVA are important because many parametric statistical methods, such as those that assume that the variances between groups are homogeneous.

Simple independent t-test in this study uses t-test to compare two variables, whether significant or not. Hypothesis testing is used to determine whether or not there is a significant difference between the pretest and posttest. Hypothesis testing uses the SPSS 26 program.

N-Gain is used to measure the effectiveness of a learning method by comparing the pretest and posttest.

## RESULTS AND DISCUSSION

The t-test, or statistical test, is used to analyze pre-test and post-test data to compare the mean differences between the experimental and control groups. The purpose of the t-test is to determine whether there is a significant difference between student learning outcomes before and after the implementation of the cat-mouse game.

The results of the normality test show that the pretest data in the experimental group has a Sig. value = 0.103 which indicates a normal distribution and the posttest data in the experimental group has a Sig. value = 0.983 which indicates a normal distribution, while in the control group the Sig. value pretest = 0.323 which indicates a normal distribution and the posttest with a Sig. value = 0.128 is normally distributed.

The results of the study showed a significance value of sig. (2-tailed) 0.000, based on the decision that sig.  $< 0.05$  according to the criteria then  $H_0$  is rejected and  $H_a$  is accepted. Therefore, the results of the analysis show that after being given treatment, both the control group and the experimental group experienced significant changes. This shows that the learning approach used has a significant influence on student learning outcomes. The results specifically show that the application of the cat-mouse game has succeeded in improving the ball control skills of extracurricular students at SDN Tanjungsang. This shows that the cat-mouse game can be an effective alternative to improve students' ball control skills.

In this study,  $H_0$  is accepted and  $H_a$  is rejected because the Sig. value of 0.115 is greater than 0.05, in accordance with the results of the homogeneity test. Thus, it can be concluded that the variance between the experimental group and the control group is homogeneous, meaning that before being given treatment, both groups have the same level of data variation. The homogeneity test was conducted to ensure that the variance between the experimental group and the control group is the same. The results showed that there was significant variance in both groups; the significance value (Sig.) based on the mean was  $0.115 > (0.05)$ .

The results of the study showed that  $H_0$  was rejected and  $H_a$  was accepted with a Sig. (2-tailed) value of 0.024 ( $< 0.05$ ). Thus, it can be concluded that the cat-mouse game has a significant influence on improving students' basic ball control skills in futsal games on the pencak silat step pattern.

The results of the N-Gain calculation show that the experimental group has an average N-Gain of 0.8091 Included in the high category,



this shows that the cat mouse training method is effective in improving ball control skills in futsal games.

The comparison of N-Gain between the experimental and control groups shows that the training method using the cat-mouse game is quite effective, indicating that this training method is able to provide a more in-depth and contextual learning experience. Therefore, it can be suggested to use this training method as an alternative to futsal games in elementary schools which is better because it can improve students' ball control skills.

The results of this study indicate that the cat-mouse game has a major influence in improving the ability to control the ball in futsal players. This exercise not only helps players in dealing with opponent pressure but also increases movement speed and better ball control. The study conducted by (Aminullah, R., Prasetyo, B., & Suryani, 2022) supports this finding by stating that game-based training is able to significantly improve the motor skills and coordination of novice futsal players.

Compared to conventional training methods, training that involves game elements is more effective because it provides a more engaging learning experience and makes players more active in each training session. (Wahyudi, H., Prasetyo, R., & Andriani, 2021). (Nugroho, A., Wijaya, S., & Darmawan, 2020) also found that game-based training can increase player motivation by up to 90%, which contributes to improving the overall quality of training. In addition, the study (Purnama, R., Wijaya, S., & Darmawan, 2022) shows that the cat-mouse game method is able to improve ball control skills up to 30% higher compared to training methods without game elements.

Apart from improving ball control, another benefit of the cat-mouse game is that it improves the players' focus and reflexes. (Danu et al., 2014) in his research found that this game helps players in improving spatial awareness and reaction speed, which are crucial aspects in futsal. This finding is also supported by a study conducted by (Sari, M., & Widodo, 2021) where the game method is proven to improve ball control and passing accuracy by up to 20% compared to conventional training.

Thus, the implementation of cat-mouse game in futsal training not only improves ball control skills but also provides a more enjoyable and effective learning experience for players, so it is recommended to be implemented in futsal

training programs, especially at the beginner level.

There is no discussion of the results yet, please discuss your article with relevant previous research citations. If you do not understand how to make a discussion, please read the published journal active article.

## CONCLUSION

Based on the results of the research that has been done, it can be concluded that the cat-mouse game has a significant influence in improving ball control skills in students who take part in futsal extracurricular activities in elementary schools. The results of statistical analysis showed that there was a significant increase in ball control skills in the experimental group using the cat-mouse game training method compared to the control group using conventional training methods.

Besides that, This study also proves that the cat-mouse game is an effective training method in improving ball control skills. The effectiveness of this method is supported by several factors, such as more interactive training, increased agility and body coordination, and stimulation of faster decision making in dynamic game situations.

With Thus, the cat-mouse game can be recommended as an alternative training method to improve ball control skills, because it has been proven to improve technical skills, thinking speed, and physical endurance of futsal players.

## REFERENCES

- Adi Surya, H., Kristiyanto, A., & Purnama, SK (2019). Improving Basic Futsal Technique Skills Through the Use of Video Media in Male Students Who Are Futsal Enthusiasts. *Proceedings of the National Seminar on Science and Technology Olahragasasasasa (SENALOG)*, 2(1), 21–24. <https://ejournal.unibabwi.ac.id/index.php/semnassenalog/article/view/587>
- Alhababy, AM (2016). Development of Futsal Sports. 14(5), 1–23.
- Aminullah, R., Prasetyo, B., & Suryani, T. (2022). The Effect of Game-Based Training on Motor Skills and Coordination of Beginner Futsal Players. *Journal of Sports Education*. 14(1), 45–58.
- Aminullah, W., Ilham, I., & Decheline, G. (2022). The Influence of Traditional Games on the Speed of Special Olympics Indonesia (SOIna) Futsal Athletes at SLB Sri Soedewi Jambi. *Indonesian Journal of Sport Science and Coaching*, 4(2), 175–184. <https://doi.org/10.22437/ijssc.v4i2.19607>
- Aprilianta, MA (2022). Efforts to improve basic fut-

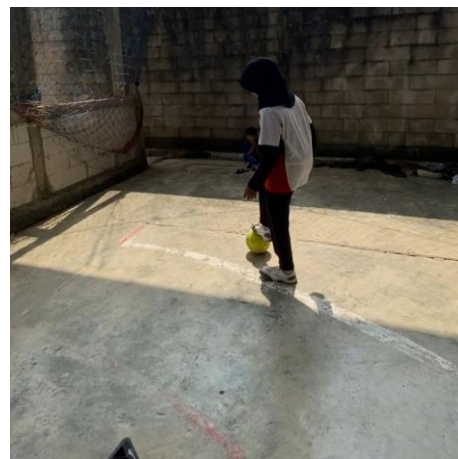


- sal passing skills with the inside of the foot and controlling with the sole of the foot using the drill method in students .... 6(10), 1095-1105. <https://doi.org/10.17977/um-062v6i102024p1095-1105>
- Daniel, J., Manalu, N., Lois, B., Hany, F., & Pratama, I. (nd). Application Of Small Side Game In Futsal Athletes. 104-108.
- Danu, I., Sahputra, R., & Graduates of Physical Education and Health Study Program Year, M. (2014). Efforts to Improve Basic Passing Techniques in Futsal Using the Traditional Cat Ball Game Method for Grade XI Ips Students of Muhammadiyah Nanga Pinoh High School. *Journal of Physical Education, Health and Recreation*, 1, 59-63.
- Ginting, P., Darmayasa, IP, Satyawati, IM, Artanayasa, IW, Yogi, K., & Lesmana, P. (2022). Students' Interest in Participating in Futsal Extracurricular Activities. 10(1), 48-53.
- Ginting, SS, Syafrial, S., & Defliyanto, D. (2019). Analysis of Control, Heading and Passing Techniques of Futsal Extracurricular Students of Smp Negeri 13 Bengkulu City. *Kinesthetic*, 3(1), 118-124. <https://doi.org/10.33369/jk.v3i1.8820>
- Hamdani, L., Handayani, HY, & Anwar, K. (2022). The Effect of Small Sided Games Variation Training on the Basic Passing and Stopping Techniques of The Jinkz Fc Bangkalan Futsal Players. *Mandala Education Scientific Journal*, 8(3), 2352-2358. <https://doi.org/10.58258/jime.v8i3.3732>
- Haris, A., Wahyudi, U., & Yudasmara, DS (2020). The Effect of Drill Method Training and Playing Method on the Passing Skills of Futsal Extracurricular Students. *Sport Science and Health*, 2(2), 105-113. <https://download.garuda.kemdikbud.go.id/article.php?article=1684634&val=18299&title=The Effect Of Drill Method Training And Playing Method On The Passing Skills Of Futsal Extracurricular Students>
- HULFIAN, L. (2022). Validity and Reliability Level of Futsal Playing Skills Test Instrument. *ACADEMIA: Journal of Academic Research Innovation*, 2(1), 27-34. <https://doi.org/10.51878/academia.v2i1.1077>
- Norifansyah, N., Arifin, RA, & Amirudin, AA (2024). Analysis of Passing and Control Levels of Futsal Players in Extracurricular Activities at SMPN 13 Banjarbaru. *SPRINTER: Journal of Sports Science*, 5(2), 224-231. <https://doi.org/10.46838/spr.v5i2.523>
- Nugroho, A., Wijaya, S., & Darmawan, B. (2020). The Effect of Game-Based Training on Motivation and Quality of Futsal Players' Training. *Journal of Sports Science*, 12(2), 78-90.
- Purnama, R., Wijaya, S., & Darmawan, B. (2022). Cat-Mouse Game Training Method in Improving Young Players' Ball Control Mastery. *Journal of Sports Science*, 14(3), 23-35.
- Purnama, A., Ma, S., Mury Syaefi, M., Study of Physical Education, Health and Recreation, P., Teacher Training and Education, F., & Singaperbangsa Karawang, U. (2022). The Effect of Tactical Static Passing Method on Futsal Passing Skills at Smp Negeri 2 Ciasem. *Journal of Social Sciences and Education (JISIP)*, 6(4), 2598-9944. <https://doi.org/10.36312/jisip.v6i4.3772/http>
- Rohman, A., Ismaya, B., & Syaefi, MM (2021). Survey of Basic Inside Foot Passing Techniques of SMK Pamar Cikampek Futsal Extracurricular Participants. *Jurnal Ilmiah Wahana Pendidikan*, 7(6), 357-366. <https://doi.org/10.5281/zenodo.5632568>
- Saputra, SF (2019). The Nature of Futsal. 7-33.
- Sari, M., & Widodo, T. (2021). Effectiveness of Game Methods on Improving Ball Control and Passing in Young Players. *Journal of Physical Education and Sports*, 9(2), 102-115.
- Wahyudi, H., Prasetyo, R., & Andriani, N. (2021). Game Modification in Futsal Learning to Improve Students' Basic Skills. *Journal of Sports and Education*, 11(1), 33-47.
- Zainuddin, F., & Yusuf, PM (2020). Mastery of Basic Futsal Techniques of Extracurricular Students of SMA NW Narmada. *JISIP (Journal of Social Sciences and Education)*, 4(4), 525-527. <https://doi.org/10.58258/jisip.v4i4.1566>

### Lampiran 13 Dokumentasi Penelitian.



Gerakan Pemanasan



Test Awal/Pretest



Permainan Kucing Tikus Dengan Formasi Lingkaran





Permainan Kucing Tikus Dengan Dribbling



Permainan Kucing Tikus Dengan Setengah Lapangan



Permainan Kucing Tikus Dengan Full Lapangan



Permainan Kucing Tikus Dengan Bertambah Jumlah Kucing



Test Akhir/Posttest







Dokumentasi Tambahan

**Lampiran 14 Riwayat Hidup.**

Penulis bernama Citra Ayu Lestari, lahir di Bandung pada tanggal 30 Juli 2003. Penulis merupakan anak ke-1 dari 2 bersaudara dari pasangan Aten Permana dan Euis Nunung Nurhayati , dan memiliki satu adik yang bernama Reyhan Yusup Ramadan. Penulis berdomisili Kp.Babakan Rt 03 Rw 04 Kec.Soreang Desa Sekarwangi Kab.Bandung. Penulis memulai pendidikan formalnya di SDN Cingcin 2, kemudian melanjutkan pendidikan di SMP Negeri 1 Katapang, dan menempuh pendidikan menengah atas di SMA Plus Merdeka Soreang. Pada tahun 2021, penulis melanjutkan studi di Program Studi Pendidikan Guru Sekolah Dasar Pendidikan Jasmani Kampus Sumedang, Universitas Pendidikan Indonesia, dan menyelesaikan tugas akhir dengan judul “Efektivitas Modifikasi Latihan Untuk Meningkatkan Keterampilan Kontrol Bola Di Ekstrakurikuler Futsal Sekolah Dasar Kabupaten Sumedang”.