

The Effect Of Ladder Drill Training On The Speed Of Pulse Matra Futsal Club Players, Pasangkayu District

Surahman Syah^{1A-E*}, Didik Purwanto^{2B-D}, Andi Saparia^{3B-D}, Muhammad Agusman^{4B-D}, Moh. Tris Maulana Daipaha^{5B-D}, Muh. Saldi^{6B-D}

^{1,2,3,4,5,6} Universitas Tadulako, Central Sulawesi, Indonesia

surahmansyah027@gmail.com¹, didik@untad.ac.id², sapariaandi@gmail.com³,
agusman170888@gmail.com⁴, tdaipaha04@gmail.com⁵, saldysya@untad.ac.id⁶

ABSTRACT

This study aims to determine the effect of ladder drill training on increasing the speed of Matra Pula Futsal Club players in Pasangkayu Regency. The research method used is a pre-experiment with a Group Pretest-Posttest Design. The sample in this study amounted to 12 players who were selected purposively. The instrument used is a 50-meter running test, conducted before and after the treatment of ladder drill training for 6 weeks, with a frequency of training four times a week. The results of data analysis using the t-test showed that there was a significant increase between the initial test results and the final test ($t_{count} = 12.3732 > t_{table} = 2.201$; $p < 0.05$). The average running time before training was 9.35 seconds, and after training decreased to 7.83 seconds. This study concludes that there is a significant effect of ladder drill training on the running speed of futsal players. This exercise is effectively used in training programs to improve physical abilities, especially the speed aspect in futsal games.

ARTICLE HISTORY

Received: 2025/06/20

Accepted: 2025/06/25

Published: 2025/06/28

KEYWORDS

Training ;
Ladder Drill;
Speed;
Pulse;
Futsal.

AUTHORS' CONTRIBUTION

A. Conception and design of the study;
B. Acquisition of data;
C. Analysis and interpretation of data;
D. Manuscript preparation;
E. Obtaining funding

Cites this Article : Syah, Surahman; Purwanto, Didik; Saparia, Andi; Agusman, Muhammad; Daipaha, Moh. Tris Maulana; Saldi, Muh. (2025). The Effect Of Ladder Drill Training On The Speed Of Pulse Matra Futsal Club Players, Pasangkayu District. **Competitor: Jurnal Pendidikan Kepeleatihan Olahraga**. 17(2), p.1593-1598

INTRODUCTION

Sport is a daily activity that is very important and has become a necessity for humans, and is useful for forming a healthy body and spirit. This is evident that no matter how busy the activities carried out, sports activities must be made time for. The development of sports to date has made a very positive and real contribution to improving fitness, health and freshness of the community. A sport that is very popular and very popular today is futsal.

According to Yudianto (2009:54), futsal is a type of soccer game played by 10 people (5 people each), and uses a smaller and heavier ball than the one used in football. The goal used in futsal is also smaller. Futsal is a very fast and dynamic game, because in terms of the relatively

small field, there is almost no room to make mistakes. The ball rolls on all sides of the playing field so fast. Therefore, every futsal player is required to have excellent physical condition. Excellent physical condition greatly supports the appearance of a player. Poor physical condition will certainly have a bad impact on the appearance of techniques and tactics.

One of the dominant physical conditions in the sport of futsal is speed and agility. The speed of limbs such as arms or legs is also important to provide acceleration to external objects such as football, futsal, field tennis, throwing discs, volleyball, and so on. Speed depends on several factors that influence it, namely strength, reaction time, and flexibility (Harsono 1988: 216). According to Nala (1998: 74), agility is the ability to change body position, direction of body movement quickly while moving quickly, without losing balance or awareness of orientation to body position.

To increase agility and speed in playing futsal, a suitable form of training is needed so that it can be improved properly. A suitable form of training is ladder drill training. Ladder drill training is the best way to increase speed, agility, coordination and balance as a whole, and this exercise is not intended to cause significant fatigue or experience shortness of breath. (Rajendra, 2016)

One of the problems in Club Futsal MATRA Pulsa is the uneven agility and speed of the players in training and matches; therefore, to solve this problem, the author will apply a form of training, namely the Effect of Ladder Drill Training on the Speed of MATRA Pulsa Futsal Club Players, Pasangkayu Regency.

METHODS

This type of research is pre-experimental research. This pre-experimental design is used to reveal cause-and-effect relationships only by involving one group of subjects so that there is no strict control of external variables (Winarno, 2013: 61). The design used in this study is "The One Group Pretest Posttest Design" Data Analysis Technique or the absence of a control group (Sukardi, 2015: 184).

Population is a collection or group of individuals that can be observed by members of the population itself or by other people who have a concern with it. The population is the entire research subject. If someone wants to examine all the elements in the research area, then the research is population research. The study or research is also called a population study or census study (Suharsim Arikunto, 2019). With this description, the population is the entire individual or object to be studied. Therefore, the population in this study were 12 people who were players of the Matra Pulsa Futsal Club, Pasangkayu Regency.

The sample is a part or a representative of the population under study. Winarno (2013) explains that 'the sample is part of the population that is the centre of our research attention, in the scope and time that we determine. Researchers will examine 12 players who regularly attend training, and researchers will examine players aged 15-17 years, who are ready to be taken as samples. The sampling technique used in this study was purposive. Purposive sampling is a sampling technique with certain considerations in Sugiyono, (2016: 85). The reason for using this purposive sampling technique is that it is suitable for use in quantitative research, or research.

As stated by Arikunto (2019, p.), research instruments are tools or facilities used by researchers in data collection so that the work is more efficient and the results are better, in the sense of being careful, complete, and systematic, so that they are easily processed. Adhi (2018) in this exam, the instrument used to collect data information in the review is a test. The tool used to measure running speed is a stopwatch. The tool used in measuring the ability to run speed in this review, using the exam tool, is used by Lee E Brown (2016), preparing for speed.

In capturing data on player criteria, it is necessary to create an assessment table that is used. The assessment is as follows:

Table 1.
Player Criteria

Criteria	Second
Very Good	9-10
Good	11-12
Fair	13-14
Poor	15-16
Very Poor	17-18

RESULTS AND DISCUSSION

Result

This research was conducted at the Matra Pulsa Futsal Club in Pasangkayu Regency, which amounted to 12 players. Training location at the MP Store, Pasangkayu Futsal field.

Initial test data on the ability of the 50 Meter Running Speed of Matra Pulsa Futsal Club, Pasangkayu Regency, before being given Ladder Drill training, thus obtained data on the results of the 50 Meter Running Speed test as follows:

Table 2.

Data from the Initial Test Results of the 50 Meter Running Speed Test Ability Before the Given Ladder Drill Exercise

No	Group A	Initial 50 Meter Run Test Results (sec)
1	Akbar Hidayat	10.01
2	Zulkarnain	10.26
3	Arya	10.05
4	Alvin	9.55
5	Radit	9.04
6	Rian	10.03
7	Syahrian	9.88
8	Muh.Yusuf	9.02
9	Alam	9.02
10	Rifal	9.19
11	Eril	8.07
12	Alif	8.04
Minimum		8,04
Maximum		10,26
Mean		9,3467
Std. Deviation		0,75262

Based on Table 1(initial test)above, the results of the 50-meter run test at the Matra Pulsa Futsal Club, Pasangkayu Regency, before being given Ladder Drill training,

obtained the highest time of 8.04 seconds, while the lowest time was 10.26 seconds. For percentages can be seen in the table below

Table 3.

Frequency Distribution of Initial Test Data

No	Interval	Category	Frequency	Percentage
1	$\leq 8,22$	Very Good	2	16,66%
2	$8,22 < X \leq 8,97$	Good	0	0,00%
3	$8,97 < X \leq 9,71$	Fair	5	41,66%
4	$9,71 < X \leq 10,46$	Poor	5	41,66%
5	$\geq 10,46$	Very Poor	0	0,00%
Amount			12	100%

Table 4.

Data from the Final Test Results of the 50 Meter Running Speed Test Ability After Given Ladder Drill Training

No	Group A	Posttest Test Results of the 50 Meter Run (sec)
1	Akbar Hidayat	7.76
2	Zulkarnain	8.03
3	Arya	8.11
4	Alvin	7.09
5	Radit	7.11
6	Rian	9.25
7	Syahrian	9.20
8	Muh.Yusuf	8.13
9	Alam	7.05
10	Rifal	8.01
11	Eril	7.04
12	Alif	7.12
Minimum		7,04
Maximum		9,25
Mean		7,8250
Std. Deviation		0,79437

Based on Table 3 (final test) above, the results of the 50-meter run test at the Matra Pulsa Futsal Club, Pasangkayu Regency, after being given Ladder Drill training, obtained the highest time of 7.04 seconds, while the lowest time was 9.25 seconds. For percentages can be seen in the table below

Table 5.

Frequency Distribution of Final Test Data

No	Interval	Category	Frequency	Percentage
1	$\leq 6,64$	Very Good	0	0,00%
2	$6,64 < X \leq 7,43$	Good	5	41,66%
3	$7,43 < X \leq 8,21$	Fair	5	41,66%
4	$8,21 < X \leq 9$	Poor	2	16,66%
5	≥ 9	Very Poor	0	0,00%
Jumlah			12	100%

Table 6.

Normality Test Results for Ladder Drill Training Data

Data Group	Kolmogorov Smirnov	Sig	α	Criteria
Pretest 50-meter sprint speed test	177	0,20	0,05	Normal
Posttest 50-meter sprint speed test	229	0,08	0,05	Normal

Based on Table 5 above, it can be seen that the value for the initial test of 50-meter running speed for ladder drill training is 177 with a probability of 0.20, and for the final test of 50-meter running for ladder drill training is 229 with a probability of 0.08. Both probability values for the initial test and the final test are greater than $\alpha = 0.05$, so it is concluded that the data obtained are normally distributed, and further analysis can be conducted using parametric tests with t-tests.

CONCLUSION

Based on the results of the analysis and discussion of the results of the study, it can be concluded that this ladder drill exercise shows that t count is greater than t table, while t count is 10.6873 while t table at a significant level of 5% d.b (N-1)=(12-1)=11 is 2.201, so there is an effect of ladder drill training on increasing speed in Matra Palsa Futsal Club players, Pasangkayu Regency. So that (H0) in this study is rejected and the alternative hypothesis (Ha) is accepted.

Based on the results of the study, the following suggestions are given to trainers and other researchers: 1. For the coach, in training dribbling skills, so that it is not monotonous and boring to provide a variety of dribbling skills. 2. We recommend that to increase speed in Pasangkayu Regency Matra Palsa Futsal Club players, FMP administrators combine ladder drill exercises so that players have good speed in dribbling the ball and speed in running. 3. For readers, to provide references regarding effective Futsal playing techniques.

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