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PAIRED VARIATION TRAINING ON PASSING ABILITY IN FUTSAL GAME

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Abstract

Sport has an important role in human life, including in the development of motor skills and teamwork. This study aims to determine the effect of paired variation training on passing ability in futsal games. The method used was experimental research with a pretest and posttest design on a single group. The results showed that the application of the paired variation training method had a significant effect on improving passing ability, with an average pretest value of 12.60 and a posttest of 17.65, and an average increase of 5.05 points (± 40.1%). The paired sample T-test produced a significance value of 0.001 <0.05, which showed a significant difference between the pretest and posttest. Paired variation training not only improves technical skills, but also provides a contextualized and applicable training experience, involving communication and cooperation between players. This research contributes to the development of sports training methods, especially in improving basic passing techniques for futsal extracurricular students at the student level.

Keywords: paired variation training, passing ability, futsal.

INTRODUCTION

Sports play a vital role in human life because they offer numerous benefits, both physical and mental. Through sports, individuals can improve physical fitness, health, motor skills, and coordination. Furthermore, sports contribute to character development, discipline, and teamwork. Ball games are one of the most popular sports among many groups because they are easy to play and enjoyable. One of the hallmarks of ball games is the direct interaction between players, which requires cooperation and effective communication to achieve the common goal of scoring points or goals.

In futsal, a variant of soccer with five players and a smaller field, basic techniques such as passing are crucial for smoothing the flow of the game and maximizing scoring opportunities. Therefore, mastering good passing techniques is a key foundation in ball games in general and futsal specifically. Passing is a fundamental skill required for every futsal player. This technique serves to maintain controlled ball flow within a team, build organized attacks, and create scoring opportunities. Unfortunately, the facts on the ground show that many futsal players at both student and amateur levels still experience difficulties in passing correctly and accurately.

Some of the main causes of this weak passing ability are a lack of basic technical understanding, limited training sessions focused on passing, and monotonous and unvaried

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teaching methods. Many coaches still rely on conventional training methods that don't allow players the opportunity to adapt to dynamic game situations. As a result, players' passing abilities don't significantly improve. Even in match situations, this weakness can disrupt the team's rhythm, lead to loss of possession, and difficulty creating effective chances.

To address these issues, training methods are needed that not only emphasize technique repetition but also develop game understanding, teamwork, and the ability to adapt to dynamics on the field. Pair variation training has the advantage of being designed to actively involve two players, thus creating conditions that mimic real-life game situations. In terms of innovation, the pair variation training approach represents a new approach to basic futsal technique training, which has traditionally tended to be conventional. This approach adopts the principles of Teaching Games for Understanding (TGfU) and game-based learning, where players don't simply memorize techniques but learn through real-life games and situations. In other words, pair variation training positions players as active subjects in the learning process, rather than simply receiving instructions from the coach.

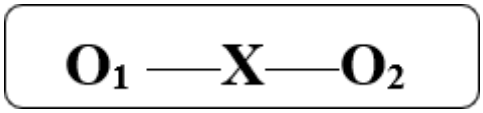
Based on the problems and potential solutions outlined above, the researcher felt it was important to conduct research on the effect of paired variation training on passing ability in futsal. The purpose of this study was to determine the effectiveness of paired variation passing training, analyze the advantages and disadvantages of paired variation passing training, and provide suggestions or input regarding the shortcomings of the paired variation passing training method..

METHODS

This research uses a quantitative method. According to Sugiono, quantitative research methods are also called traditional methods (Priadana and Muis refer to them as traditional paradigms) because they have been used for a long time and have become a tradition for research.

According to Sugiyono (2019), research methodology is a scientific way to obtain data for specific purposes and uses. The type of research method used in this study is the experimental method. Experimental research methods are included in quantitative research methods. The method used is the experimental or ex post facto research method. Experiments are one of the various quantitative research methods. This quantitative research is conducted to test the effectiveness of experimental variables.

Experimental research aims to determine the effect of certain variables on other variables under strictly controlled conditions. This study adopted a pretest and posttest design on a single group, without involving a control or comparison group. This experimental design, which uses a pretest and posttest on a single group, is known as a pre-experimental design, which involves one group or class undergoing measurements before and after an intervention.



Description:

X = Treatment/treatment given

O1 = Initial observation/measurement (pretest)

O2 = Final observation/measurement (posttest)

This research was conducted at a school with a sample size of 20 members of the Futsal extracurricular activity. The study was conducted over four weeks, with eight meetings and training sessions twice a week. Data collection techniques were the most strategic step in conducting the research, as the primary objective of the study was to obtain data. This research involved tests and measurements using SPSS.

Data analysis for quantitative research was conducted using statistical formulas or statistical aids such as SPSS or S-PLUS. This study utilized SPSS computer software, as this was a quantitative study. The steps for data analysis using SPSS included testing the normality of data distribution using the Shapiro-Wilk Test with the formula D = maximum [Sn1 (X) – Sn2 (X)] using SPSS 25. Then, linearity testing was performed using SPSS using the ANOVA table, often referred to as the linearity test. Finally, a paired simple test was used to test the average difference between two groups of paired data or samples, and the percentage increase using the formula:

$$Percentage\ increase = \frac{mean\ different}{mean\ pretest} x100\%$$

RESULTS AND DISCUSSION

The results of the study indicate that the application of the paired variation training method significantly improved passing skills in futsal. This was demonstrated by the results of the paired simple T-test, which yielded a significance value of 0.0001 < 0.05, thus concluding that there was a significant difference between the pretest and posttest scores. This means that the training provided successfully improved the performance of basic passing skills in futsal extracurricular students.

Table 1
SPSS Paired Simple Test Table

	Sig	Maximum Score	Information
Pretest and *Posttest*	0,0001	0,05	Influential

Data analysis test requirements are procedures that must be implemented and fulfilled so that the conclusions drawn from the analysis results can be accounted for as accurate as possible if the analysis requirements have been met. The data analysis test requirement used is the normality test.

The data normality test is used to determine whether the obtained data is normally distributed or not. This test uses the Shapiro-Wilk test formula, with the criteria that the data is normally distributed if the significance value or K-S probability value is > 0.05. Conversely, if the significance value or K-S probability value is < 0.05, the data distribution is not normal..

Table 2
Table of Changes in Differences

No.	Nam	Score		D (X2-X1)	D (D-MD)	D^2
		Pretest	Posttest			
1	Aldira	13	15	2	3.05	9,3025
2	Arga	13	17	4	1.05	1.1025
3	Banyu	10	15	5	0.05	0,0025
4	Bara	12	17	5	0.05	0,0025
5	Dante	13	17	4	1.05	1.1025
6	Emir	12	17	5	0.05	0.0025
7	Fadilah	10	16	6	0.95	0,9025
8	Fait	10	15	5	0.05	0,00251
9	Fathan	17	21	4	1.05	1,1025
10	Fathur	14	20	6	0.95	0,9025
11	Fazri	15	22	7	1.95	3,8025
12	Fikri	14	16	2	3.05	9,3025
13	Juna	13	19	6	0.95	0,9025
14	Kaya	10	16	6	0.95	0,9025
15	Mihran	7	16	9	3.95	15,6025
16	Rafan	13	17	4	1.05	1,1025
17	Rakha	15	20	5	0.05	0,0025
18	Razka	14	18	4	1.05	1,1025
19	Ridho	12	18	6	0.95	0,9025
20	Zul	15	21	6	0.95	0,9025

The data normality test is used to determine whether the data obtained is normally distributed or not. This test uses the Shapiro-Wilk test formula with the criteria that the data is normally distributed if the significant value or K-S probability value is > 0.05 and vice versa if the significant value or K-S probability value is < 0.05, it means the data distribution is not normal. The results of the calculation of the normality test for the initial and final test data for the ability to pass under are as follows:

	Sig	Score	Results
Pretest	.355	0,05	Normal
Posttest	.055	0,05	Normal

Based on the Shapiro-Wilk test, the significance value for the pretest data was 0.355 and

for the posttest, 0.055. Because the significance value for the Shapiro-Wilk test was greater than 0.05, the pretest and posttest data were declared normally distributed.

The linearity test is used to determine whether the information used in the model is correct. It determines whether the function used in an empirical study should be linear, quadratic, or cubic. In this study, the researchers used SPSS software to examine the ANOVA table, often referred to as the linearity test. The test procedure is as follows:

	Sig	Minimum Score	Results
Posttest and *Pretest*	0.797	0,05	Linear

Based on the linearity test, the significance value of the pretest and posttest data was 0.797. Because the significance value in the linearity test was greater than 0.05, the pretest and posttest data were declared linear.

Based on the statistical data, the average pretest score was 12.60, while the posttest score increased to 17.65. This represents an increase in the average score of 5.05 points, or a percentage increase of ±40.1% from the initial result. This indicates that the paired variation training method can have a significant impact on students' passing ability. Furthermore, based on the Shapiro-Wilk normality test, the pretest and posttest data showed a normal distribution, with a significance value of 0.355 for the pretest and 0.055 for the posttest, both of which are greater than the 0.05 threshold. This indicates that the use of parametric statistical methods such as the paired sample t-test is valid.

Theoretically, these results support the view from various literature sources that varied basic technique training, particularly in pairs, is more effective because it involves communication, teamwork, and adaptation to game situations. This training reflects the principles of contextual learning and approximates actual game conditions, allowing students' passing skills to develop not only technically but also tactically.

The data also shows that most students experienced individual improvement. For example, a student who initially scored low on the pretest, like Mihran (initial score of 7), achieved a posttest score of 16, demonstrating significant improvement after participating in the training program. This indicates that this training method is effective not only for students with a strong foundation but also for those with initially limited skills. These findings align with previous studies, such as those by Zainal Fikri and Fahrizqi (2021) and Hermawan et al. (2023), which also demonstrated that varied pair training significantly improves basic technique skills in both futsal and other ball games.

Thus, it can be concluded that the paired variation training method is an effective, applicable, and enjoyable approach to improving futsal passing skills, especially for extracurricular students. Furthermore, this method can also be used as an alternative learning

method to avoid boredom and increase student active participation in training.

CONCLUSION

Paired variation training has been proven effective in improving students' passing skills in futsal. This is indicated by an increase in the average score from 12.60 in the pretest to 17.65 in the posttest, with an average difference of 5.05 points. The distribution of pretest and posttest data was declared normal based on the Shapiro-Wilk test, with a significance value of 0.355 for the pretest and 0.055 for the posttest (both greater than 0.05). This indicates that the data meets the assumption of normality u. The distribution of pretest and posttest data was declared normal based on the Shapiro-Wilk test, with a significance value of 0.355 for the pretest and 0.055 for the posttest (both greater than 0.05). This indicates that the data meets the assumption of normality u. This research provides a significant contribution to the development of sports training methods, particularly in optimizing basic passing techniques for extracurricular futsal students at the school level.

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