

Agung Yudha Catur Rizal<sup>1</sup>, Sugiyanto<sup>2</sup>, Sri Santoso Sabarini<sup>3</sup>

## Passing training model based on small side game in futsal sports for senior high school students

Sebelas Maret University, Indonesia

### Abstract

This research aims to: (1) Developing a futsal passing model based on small-sided games for high school futsal extracurricular participants. (2) Testing the feasibility of a small-sided games-based futsal passing training model for high school futsal extracurricular activities. (3) Test feasibility through small-scale and large-scale futsal passing training models based on small-sided games for high school futsal extracurricular participants. (4) Test the effectiveness level of the small-sided games-based futsal passing training model for high school futsal extracurricular activities between the experimental group and the control group. This research uses the development method (Research and Development) "proposed by Borg and Gall, The researcher adapted the research procedure into 3 main stages: stage 1 needs analysis, stage 2 product development and product trials, stage 3 product effectiveness tests. The sample was 30 extracurricular players. The research instruments were observation, interview, mixed questioner, the rating scale used was absolute rating scales, and field notes. Data analysis techniques are qualitative analysis and quantitative analysis. Qualitative data analysis was obtained from interviews and field notes. The quantitative analysis obtained from the prerequisite test was divided into two, namely the normality test and the homogeneity test using the SPSS version 18.0 software program. The effectiveness test uses t-test with SPSS version 18.0 software program. and comparative test. The research results are (1) Planning and implementation of futsal passing technique training during training is less varied, and the still low level of mastery of futsal passing technique during training. (2) The results of the feasibility test of experts obtained an average value of 81.11%. (3) The results of the group test using a small-sided games-based futsal passing training model on a small scale obtained an average value with a percentage of 81.4% and on a large scale obtained an average value with a percentage of 84.53%. (4) The results of the effectiveness test using the t-test in the experimental group obtained a significant value of 0.01. This means that a significant value of  $0.01 < 0.05$  so that it can be concluded that there is a difference between the pre-test and post-test scores. The results of the effectiveness test using the t-test in the control group obtained a value of 0.925. This means that a significant value of  $0.925 > 0.05$  so that it can be concluded that there is no difference between the pre-test and post-test scores.

**Keywords:** passing training model, small sided games, futsal

<sup>1</sup> Agung Yudha Catur Rizal, e-mail: [agungyudhacr7@student.uns.ac.id](mailto:agungyudhacr7@student.uns.ac.id), ORCID: 0000-0002-6190-9387

<sup>2</sup> Sugiyanto, e-mail: [sugiyantoprobo@gmail.com](mailto:sugiyantoprobo@gmail.com), ORCID: 0000-0002-9991-5264

<sup>3</sup> Sri Santoso Sabarini, e-mail: [sririni76@yahoo.com](mailto:sririni76@yahoo.com), ORCID: 0000-0002-3629-0703

## Introduction

Futsal is a ball game played by two teams, each of which has five members with the aim of putting the ball into the opponent's goal, by manipulating the ball and legs (Kurniawan, 2011: 104). To be able to play futsal properly, a player must have good basic skills or techniques, not only being able to kick the ball but also requires expertise in controlling or controlling the ball. Futsal is a very interesting and fast game. Both in terms of the field are relatively small, almost no errors occur. Therefore we need cooperation between players through accurate passing, not just past the opponent. This is because in futsal games the player always departs with the philosophy of 90% ball possession.

Futsal is a game that uses operands for the game, especially using short passes or short passes. Therefore, a futsal player needs to master the basic techniques of passing or bait that is good and right. Rudito (2015: 16) passing is the most important skill to master, passing connects all players in all parts of the field and allows the team to build attacks. A good and right passing game must consider three TWA principles in Passing, namely timing, weight and accuracy (Tim Burns, 2003: 29). Therefore passing techniques must be really mastered by futsal players.

Based on the observations of researchers, shows that there are some futsal players in high school who have not mastered the basic techniques of passing well. This can be seen during the game, players still often make a lot of passing mistakes that cause game patterns to be hampered. In addition, the creativity of players in passing is also still limited due to the lack of training variations. According to Lhaksana (2011: 30) Futsal passing practice is one of the basic techniques that is needed by every player. The technique that is really needed in futsal is basically a passing technique.

Exercise is to increase the work capacity of athletes skills and psychology quality to improve their performance in competition (Bompa, 2009: 37). Sukadiyanto (2011: 6) training is a process of perfecting the ability to exercise with a scientific approach, cursing the principles of education that are planned and organized so that it can increase the readiness and ability of athletes. Tangkudung (2012: 42) argues that training is a systematic and practicing process that is carried out repeatedly with increasing numbers of training loads and training intensity.

One of the exercises to improve passing ability is to use the small side games method. Ganesha Putera (2004: 12) said that small-sided games training is an evolving exercise, by presenting a game situation that makes the game get the technical, tactic and physical aspects of the game as well. Komarudin (2013: 60) Small-sided games are a form of exercise that is able to effectively improve abilities by modifying the shape of the field size and is easy to supervise by a trainer. Small-sided games are a fun exercise for sports games by utilizing physical and technical training in the form of games that are reduced in size with a limited number of players.

Passing in the game of futsal is considered so vital in the continuity of the game, to start the game, start the attack and set the rhythm of the game. This was stated by Noviada, Darmawan, and Kanca (2014: 4) that in futsal games, the constant movement of players also causes players to continue passing, almost Ninety percent (90%) of futsal is filled with passing. Correspondingly, Jaenudin (2018: 2) states that the basic passing technique is the most widely used during futsal matches compared to other basic techniques. So it can be said that Passing is a technique that is widely used and important to be mastered by players when playing futsal to continue to pass in the game, so that almost in futsal the most widely used game is using passing. The problem raised above is

the background of the study entitled "Small Sided Games Based Passing Training Model in Futsal Sports for Senior High School Students".

**Methods**

This research used developmental research design. The population in this study were senior high school students throughout Kotabumi Kota District, North Lampung. The research subjects were male students who took futsal extracurricular activities in Kotabumi Kota District. The number of samples used in this total population (total sampling) amounted to 30 samples with the division of 15 samples for the experimental group and 15 samples for the control group.

The stages of the study adopted the Borg and Gall development research procedure (1983: 775), namely First, needs analysis. Second, product development with expert evaluations and field trials. Third, to test the effectiveness of the experiment using a pretest and posttest design with random group selection (ONE group randomize pre-test and post-test).

The instruments used in this study were observation, interviews, mixed questioners, the rating scale used was absolute rating scales, and field notes.

The data analysis technique used was divided into two namely qualitative analysis and quantitative analysis. Qualitative data analysis was obtained from interviews and field notes. The quantitative analysis obtained from the prerequisite test was divided into two, namely the normality test and the homogeneity test using the SPSS vesi 18.0 software program. The effectiveness test uses t-test with SPSS version 18.0 software program. and comparative test.

**Results and Discussion**

**Need analysis**

The needs analysis phase is carried out to identify problems in research. The needs analysis was carried out using the method of interviewing futsal extracurricular trainers in five schools with the conclusion results presented in table 1.

**Table 1.** Results of futsal extracurricular trainer interviews

No	Subject	Results of interviews and observations
1.	Futsal Coach a. SMA N 1 Kotabumi b. SMA N 3 Kotabumi c. SMA N 4 Kotabumi d. SMA Kemala Bhayangkari e. SMK N 3 Kotabumi	1. Still lack of passing training when training. 2. There is no specific training in passing training 3. Decrease in motivation to exercise. 4. It's very difficult to implement an exercise program. 5. 5. Less mastering passing training model (relying on conventional training). 6. It's hard to be on time when training. 7. Prefer games on the exercise band. 8. Attention from the school is minimal.

Based on the needs analysis conducted, The conclusion is that the needs analysis can be concluded that the planning and implementation of futsal passing training

techniques during your training vary, and the still low level of mastery of futsal passing techniques during training.

### Product development

The product development stage consists of a study of supporting theories about futsal as well as the stage of drafting the initial product development draft and then followed by an evaluation of the product from the expert and the results of the field trials.

Expert evaluation in this study was conducted to obtain responses and input from futsal experts for the perfection of product making, in this case a small sided games-based passing training model in futsal. Following are the results of the evaluation of futsal experts.

**Table 2.** Quantitative data on the evaluation results of futsal academics 1

No	Evaluation aspects	Result Score	Maximum score
1.	SSG Training Model	132	160
2.	Exercise Program	16	20
	Jumlah	148	180

Based on quantitative data the results of the evaluation of futsal academics 1 experts namely Aditya Gumantan, S.Pd, M.Pd as a lecturer at the Indonesian Technocrat University obtained a percentage value of 82.22%. The percentage results can be interpreted that the product design can be continued to be trialled at a later stage according to advice from futsal academics.

**Table 3.** Quantitative data on the evaluation results of futsal practitioners 1

No	Evaluation aspects	Result Score	Maximum score
1.	SSG Training Model	133	160
2.	Exercise Program	14	20
	Total	147	180

Based on quantitative data the results of the evaluation of expert practitioners futsal 1 namely Pamula Putra as the North Lampung PORPROV trainer team obtained a percentage value of 81.66%. The percentage results can be interpreted that the product design can be continued to be tested at a later stage according to the advice of a futsal pact 1 expert.

**Table 4.** Quantitative data on the evaluation results of futsal practitioners 2

No	Evaluation aspects	Result Score	Maximum score
1.	SSG Training Model	130	160
2.	Exercise Program	13	20
	Total	143	180

Based on quantitative data the results of the evaluation of expert practitioners of futsal 2 namely Angga Selvian as a licensed trainer at level 1 AFC obtained a percentage value of 79.44%. The percentage results can be interpreted that the product design can be continued to be tested at a later stage according to the advice of a futsal pact 2 expert

**Table 5.** Conclusion of quantitative data from expert evaluation results

No	Expert	Result Score	Maximum score	percentage
1.	Academic expert 1	148	180	82.22 %
2.	practitioners futsal 1	147	180	81.66 %
3.	practitioners futsal 2	143	180	79.44 %
	Total	438	540	81.11 %

Based on the conclusions of the quantitative data the results of the overall expert evaluation obtained a percentage of 81.11%. The percentage results can be interpreted that the design of the mood exercise product passing based on small sided games on extracurricular participants was tested at a later stage.

The product trials in this study aim to seek assessment from POK UNS futsal players related to the content of the training model. Product trials are carried out in two stages: small group trials and large group trials. The following will be presented the results of product trials.

**Table 6.** Quantitative data on the results of small group trials

No	Assessment Aspects	Result Score	Maximum Score
1.	SSG Training Model	407	500
	TOTAL	407	500

Based on quantitative data the results of small group trials obtained a percentage value of 81.4%. The percentage results can be interpreted that the product design of passing model based on small sided games can be tested at the large group stage.

**Table 7.** Quantitative data from large group trial results

No	Assessment Aspects	Result Score	Maximum Score
1.	SSG Training Model	1369	1500
	TOTAL	1369	1500

Based on quantitative data the results of a large group trial results obtained percentage values of 84.53%. The percentage results can be interpreted that the product design of passing model based on small sided games can be tested at the product effectiveness test stage (product experiment test).

**Effectiveness test**

The effectiveness test phase of a small sided games-based passing training model for high school-aged children is divided into two groups: the experimental group and the control group. The experimental group will be given treatment treatment passing based on small sided games and the control group will not be given treatment. The following will be presented the results of the product effectiveness test.

**Table 8.** Average scores of the SSG-based passing skills group

No	Group Type	Pre-test	Post-test
1.	control group	11	11,04
2.	experimental group	10,48	15,36

Based on the average score of the passing skills group based on SSG, the control group experienced an increase in the value of the pre-test and post-test results by 0.4. The experimental group experienced an increase in the value of the pre-test and post-test days by 4.88. This shows that the product effectiveness test in the experimental group has a greater increase in value.

### Normality test

Data normality test is used to determine whether the population data in the study is normally distributed or not. The normality test in this study is the Kolmogorov-Smirnov test. The results of the normality test will be presented in the following table.

**Table 9.** Results of experimental group normality tests

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Pre_test	,173	25	,051	,894	25	,014
Post_Test	,168	25	,067	,943	25	,177

**Table 10.** Results of control group normality tests

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Pretest	,156	25	,120	,959	25	,389
Posttest	,173	25	,051	,951	25	,270

Based on the normality test data results in the experimental group and the control group showed that the statistical value of the Sig pre-test and post-test experimental group and control group  $> 0.05$ . This shows that the normality test results of the experimental group and the control group were normally distributed.

### Homogeneity Test

Homogeneity test is done to test the equation of some samples, which are homogeneous or not. Homogeneity test is intended to test the similarity of variance between pre-test and post-test. Homogeneity test in this study is the Levene test. The following will be presented homogeneity test results.

**Table 11.** Results of the experimental group homogeneity tests

Levene Statistic	df1	df2	Sig.
,226	1	48	,636

**Table 12.** Results of control group normality tests

Levene Statistic	df1	df2	Sig.
,254	1	48	,617

Based on the homogeneity test data results in the experimental group and the control group using the Levene test showed that the statistical value of the Sig in the experimental group was 0.636 and the value of the control group was 0.617 > 0.05. This shows that the homogeneity test results of the experimental group and the control group were homogeneous.

**Effectiveness test**

The effectiveness test was carried out on the experimental group and the control group using t-test with SPSS version 18.0 software program. The following will be the results of the effectiveness test.

**Table 13.** Results of the experimental group t-test

		t-test for Equality of Means						
		T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
pretest_ posttest	Equal variances assumed	-,095	48	,925	-,040	,422	-,889	,809
	Equal variances not assumed	-,095	47,798	,925	-,040	,422	-,889	,809

**Table 14.** Control group t-test results

		t-test for Equality of Means						
		T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
pretest_ posttest	Equal variances assumed	-,095	48	,925	-,040	,422	-,889	,809
	Equal variances not assumed	-,095	47,798	,925	-,040	,422	-,889	,809

Based on the effectiveness of the test results using the t-test in the experimental group obtained a significant value of 0.01. This means that a significant value of 0.01 < 0.05 so that it can be concluded that H0 is rejected, which means that there is a difference between the pre-test and post-test values. The results of the effectiveness test using the t-test in the control group obtained a value of 0.925. This means that a significant value of 0.925 > 0.05 so that it can be concluded that H0 is accepted which means that there is no difference between the pre-test and post-test values.

**Comparison Test**

Comparative tests were carried out on the experimental and control groups using SPSS version 18.0 software. The following will be the results of the comparison test.

**Table 15.** Comparison of experimental group and control group data

		t-test for Equality of Means						
		T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
Result	Equal variances assumed	4,032	48	,000	4,320	1,071	2,166	6,474
	Equal variances not assumed	4,032	28,293	,000	4,320	1,071	2,126	6,514

Based on the comparison test data of the experimental group and the control group the significant value obtained from the t test was 0.00, this means that the significant value was  $0.00 < 0.05$ . So it was concluded that  $H_0$  was rejected and there were differences between the experimental and control groups.

## Conclusion

Based on the results of research and the results of data analysis that have been done, the following conclusions are obtained: (1) Planning and implementation of futsal passing technique training during training is less varied, and the still low level of mastery of futsal passing technique during training. (2) The results of the feasibility test of the experts show that the product of the futsal passing training model based on small-sided games is included in the valid or feasible category. (3) The results of small group and large group tests using a small-sided games-based futsal passing training model are included in the valid or feasible category. (4) A passing practice model based on small-sided games is more effective in increasing passing ability than conventional passing training models.

## References

- Borg, W & Gall, M.D 1983. *Educational Reserch An Introduction*. New York: Longman.
- Ganesha Putera. 2004. *Manage Small-sided games Organization*. Yogyakarta: kickoff.
- Jajang Jaenudin, dkk. 2018. *Development of Arduino Uno-Based Passing Training Media in Futsal Sports*. Journal of Applied Sports Science. Vol. 3 No.1, h. 2.
- Komarudin. 2013. *Small-Sided Games as a Means to Develop Women's Decision in Football Games*. Indonesian Physical Education Journal. Vol 9, h 60.
- Kurniawan. 2011. *Smart Sports Book*. Jakarta: Laskar Aksara.
- Lhaksana, Justinus. 2011. *Modern Futsal Tactics and Strategies*. Jakarta: Be Champion
- Noviada, Gede Eka Budi Darmawan dan I Nyoman Kanca. 2014. *Tactical passing training methods in pairs of static and passing while moving against the basic technical skills of passing a futsal ball control*. Sports training education journal. Vol 2, No 1.
- Rudito Adani, 2015. *The Effect of Small-Sided-Games Exercise on the Accuracy of Horizontal Passing of Students Participating in Futsal Extracurricular Mts Mu'allimin Muhammadiyah Yogyakarta*. Universitas Negeri Yogyakarta.
- Sukadiyanto. 2011. *Introduction to Theory and Methodology of Physical Training*. Bandung: Lubuk Agung.

Tangkudung, James. 2012. *Sports Coaching*. Jakarta: Cerdas Jaya.

Tim Burns. 2003. *Holistic Futsal a total mind-body-spirit approach*. London: lulu.com

Tudor, Bumpa. 2009. *Theory and Methodology Of Training*. Iowa: Kendal Publishing Company.