

Small Sided Games Training Model to Improve Basic First Touch Football Technical Skills of Football School Students

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ABSTRAK

Modifikasi latihan merupakan strategi penting dalam latihan olahraga untuk meningkatkan performa atlet, dan dalam konteks sepak bola, SSG merupakan salah satu metode yang menjanjikan. Oleh karena itu penelitian ini bertujuan untuk menganalisis efektivitas model latihan Small Sided Games (SSG) dalam meningkatkan keterampilan teknik dasar sepak bola pada siswa Sekolah Sepak Bola (SSB) Muspan U-12 Tahun. Penelitian ini menggunakan pendekatan kuantitatif dengan metode Quasi-Experimental, mengadopsi desain Pre-test Post-test Non-Equivalent Control Group untuk mengukur efektivitas latihan. Sampel penelitian ini terdiri dari siswa SSB Muspan U-12 Tahun. Pengumpulan data dilakukan melalui tes yang mengukur kemampuan teknik dasar sepak bola yaitu passing, dribbling, dan shooting. Tes ini dilakukan sebelum dan sesudah penerapan model latihan SSG, untuk menilai perubahan keterampilan dasar teknik. Hasil analisis data menunjukkan adanya peningkatan yang signifikan pada keterampilan teknik dasar sepak bola setelah pelaksanaan latihan SSG. Hal ini dibuktikan dengan nilai sig (2-tailed) uji Independent Sample t-Test yang mencapai 0,000, jauh di bawah ambang batas 0,05. Temuan ini menegaskan bahwa latihan SSG efektif dalam meningkatkan keterampilan teknik dasar sepak bola pada siswa SSB Muspan U-12 Tahun. Kesimpulan dari penelitian ini penting bagi pelatih sepak bola yang bekerja dengan kelompok usia yang lebih muda, menunjukkan bahwa modifikasi latihan melalui model SSG dapat menjadi strategi yang efektif untuk meningkatkan keterampilan teknis dasar.

ABSTRACT

Training modification is an important strategy in sports training to improve athlete performance, and in the context of football, SSG is one promising method. Therefore, this study aims to analyze the effectiveness of the Small Sided Games (SSG) training model in improving basic football technique skills in Muspan U-12 Year Football School (SSB) students. This study used a quantitative approach with Quasi-Experimental method, adopting Pre-test Post-test Non-Equivalent Control Group design to measure exercise effectiveness. The sample of this study consisted of SSB Muspan U-12 Year students. Data was collected through tests that measured basic football technical skills, namely passing, dribbling, and shooting. This test is carried out before and after the application of the SSG exercise model, to assess changes in basic engineering skills. The results of the data analysis showed a significant improvement in basic football technical skills after the implementation of SSG training. This is evidenced by the sig (2-tailed) value of the Independent Sample t-Test test which reaches 0.000, far below the threshold of 0.05. These findings confirm that SSG practice is effective in improving basic football technique skills in SSB Muspan U-12 Year students. The conclusions of this study are important for football coaches working with younger age groups, suggesting that exercise modification through the SSG model can be an effective strategy for improving basic technical skills.

1. INTRODUCTION

The world of football, the development of technical skills is an important foundation for every player, especially at an early age. Football is not only about physicality and strategy, but also about mastering basic techniques such as passing, dribbling, and shooting (Cherkashin et al., 2023; Toma & Campobasso, 2023). At a young age, as in Muspan U-12 Football School (SSB) students, the right training approach is crucial in determining their skill development. Small Sided Games (SSG) are a training method that has received a lot of attention for its potential in improving technical skills. SSG is a football game played with a smaller number of players, intended to give players more opportunities for ball touch and tactical decisions (da Costa et al., 2022; Meng et al., 2020). This study aimed to analyze the effectiveness of SSG training in improving basic football technique skills among young players (Kercher et al., 2023; Whalen et al., 2023). By focusing on quantitative aspects through a Quasi-Experimental approach, this study provides empirical evidence on the benefits of SSG exercise, which has been supported by theories and anecdotes. Skill development in early childhood football is key to building competent athletes of the future (Fernández-Villarino, 2021; Majewska & Majewska, 2022). One of the main challenges trainers face is determining the most effective training methods, particularly in improving basic technical skills. Small Sided Games (SSG), a training method that adapts the game of football into a smaller format, has been the focus of recent research (Fjesme et al., 2023; Makovec Knight et al., 2022). This method is believed to increase player interaction and provide more opportunities to develop technical skills. This study took the case of SSB Muspan U-12 Year as a sample, with the aim to test the effectiveness of SSG in improving passing, dribbling, and shooting skills. Through a Quasi-Experimental approach and the design of the Pre-test Post-test Non-Equivalent Control Group, this study offers new insights into the effect of SSG training on the development of technical skills among young football.

In football, basic technical skills are a prerequisite for all players, especially for those who are still at formative age such as SSB Muspan U-12 Year players. Innovative and effective training methods are urgently needed to optimize the development of these skills. Small Sided Games (SSG), which are variants of traditional football games with a smaller number of players, have attracted a lot of attention in this context. This study aims to evaluate the impact of SSG training on improving basic football technique skills, such as passing, dribbling, and shooting (Beine et al., 2023; Ersan et al., 2022). Through a quantitative approach that adopts a Quasi-Experimental method, this study reveals the extent to which SSG training can improve and improve the basic technical abilities of young players. Using the Pre-test Post-test Non-Equivalent Control Group design, this study provides empirical evidence that can be used by coaches and practitioners in the field of football training (Furlan et al., 2023; Ichinose et al., 2021).

The development of technical skills in football, particularly at an early age, is an important aspect of shaping high-calibre athletes (Kozak & Głowania, 2021; Qin, 2022). In the last decade, Small Sided Games (SSG) have emerged as one of the most effective training methods for this age, focusing on improving basic technical skills such as passing, dribbling, and shooting (Beiderbeck et al., 2023; Wallace, 2022). This study explores the use of SSG in SSB Muspan U-12 Years, with the aim of assessing its impact on the development of players' technical skills. Using a quantitative approach with Quasi-Experimental methods and a Pre-test Post-test Non-Equivalent Control Group design, this study provides an in-depth analysis of how SSG training affects young players. The results of this study are expected to provide valuable guidance for coaches and practitioners in designing effective training programs to develop basic technical skills among young soccer players (Marcelino et al., 2020; Song, 2021).

Basic technical skills in football, such as passing, dribbling, and shooting, are key elements that must be developed from an early age (Chen & Sun, 2021; Fernandes et al., 2022). Small Sided Games (SSG) have become a hot topic in football training literature, claimed to be a highly effective method of improving these skills among young players. This study focuses on the effectiveness of SSG in improving basic engineering skills in SSB Muspan U-12 Years. Through a Quasi-Experimental approach and the use of Pre-test Post-test Non-Equivalent Control Group design, the study investigates the role of SSGs in the development of basic technical capabilities. The results of this study are not only relevant for coaches and footballers at youth level, but also contribute to a broader understanding of how best to implement effective training strategies for youth footballers (Farley et al., 2022; Galli et al., 2021).

Football is a sport that is very popular in the world, football has experienced many developments, this is seen from football that still uses old patterns to become modern football that is much admired by all circles, both the upper class to the lower layers, this is because rapid technological developments are driving the development of football (Fan et al., 2023; Sadowska-Krępa et al., 2021). The game of football basically requires basic techniques, with a good mastery of basic technical skills players will be easy in playing football and achieving victory. In line with what is stated that basic technical proficiency is a very important aspect in the development of soccer players (Serpiello et al., 2017). The quality of a soccer game

is determined by basic technical abilities such as passing-stopping, dribbling, shooting the ball into the goal. The basic techniques in question are: passing, dribbling, shooting, ball control, heading, feinting, and special basic techniques of goalkeepers.

The most important aspect that a soccer player must master is the basic technique of kicking. The basic technique of kicking the ball is the technique of touching or pushing the ball using the feet. The main purpose of kicking the ball is to pass the ball (passing), throw the ball away towards the opponent's defense area and shoot the ball towards the goal (shooting). Kicking is a crucial moment in every match since its number and efficiency influence the final score. This means that kicking is an important moment in every game because its number and efficiency affect the final score (Memmert & Rein, 2018; Meng et al., 2020). Of the various goals of kicking the ball, one of the basic kicking techniques whose characteristics and activities are most dominant during the game is the basic passing technique. In football games, the ability to carry out this passing becomes a momentum in achieving victory when carrying out matches.

Based on this, the author wants to realize a training model to improve and improve basic passing technique skills through the Small Sided Games approach. The SSG training model is a program whose main goal is to learn through play, teaching children the basics of football so that they can develop their own physical and mental capacities through play. Small Sided Games is a training method by presenting game situations like real games that make players gain mastery of technical, tactical, and physical aspects. Small Side Games are designed in the form of a learning model where students are faced with situations that are almost the same as the real game, and students are expected to make decisions quickly and precisely. So it is expected to be able to improve students' skills in Shooting. Without using the actual field, this model or method can also be designed with various variations, can increase or decrease the ball or players on the field (Cabarkapa et al., 2022; Panchuk et al., 2018).

It can be concluded that Small Sided Games is a training process with a small-scale field that aims to improve techniques and tactics in football games. The SSG training method is considered appropriate for young players, because the characteristics of youth training must start from the simplest, and are easy to do as well as fun with elements of play (Apryanto, 2019; Panchuk et al., 2018). The SSG training model aims to improve basic techniques through games (small sided games) whose play area can be modified. This statement is supported by study which states that the use of smaller playing areas can improve the performance of basic passing techniques in larger playing areas (Serpiello et al., 2017). According to other study small sided games in soccer are useful tools to stimulate technical, tactical, physical and physiological performance components in contexts that simulate formal play (Apryanto, 2019).

Small sided games are the most suitable method developed for students aged 12 years in order to improve basic technical skills playing football. This research is also supported by expert opinion state that learning through modified games in football is a useful tool to stimulate technical, tactical, physical and physiological performance components in contexts that simulate formal games (Serpiello et al., 2017). The advantage of such SSG training models is that technical, tactical, and physical aspects, can be addressed holistically, thus making the drills more specific by using the ball, and also increasing player motivation and optimizing training time. By supporting the development of these skills during childhood, young soccer players may have a better chance of reaching elite levels of performance later in their sports careers (Forsman et al., 2016). The aims of this study aims to analyze the effectiveness of the Small Sided Games (SSG) training model in improving basic football technique skills in Muspan U-12 Year Football School (SSB) students. The novelty of this research uses a new model that few researchers have researched yet.

2. METHOD

The method used is quasi experimental design, where this design has a control group that does not function fully to influence the implementation of the experiment. Quasi-experimental design is a research method used to test causal hypotheses by comparing groups that already exist or are formed naturally, without random assignment of subjects to treatment groups. In this design, the researcher does not have full control over the factors that influence the independent variables or confounding variables, making it impossible to establish cause and effect with absolute certainty (Gopalan et al., 2020). This research design is one group pre-test-post-test design. In this effectiveness test stage using respondents as many as eighty (80) students consisting of forty (40) subjects who became the experimental group and forty (40) subjects who became the control group. This operational trial was carried out for 2 months, starting with the pre-test and ending with the post test. The experimental group was the group that used the SSG training model in improving basic football technique skills while the control group kept using the previous training model.

Furthermore, to prove the significance of the difference in the effectiveness of the training model of basic football technique skills through the SSG approach with the traditional training model, it needs to be tested statistically through several stages of analysis, namely data normality test, t-test and independent sample t test. By using clear metrics and measurable numbers, quantitative effectiveness allows for more accurate and objective analysis. In scientific research, quantitative data allow researchers to test hypotheses directly and provide strong empirical evidence.

3. RESULT AND DISCUSSION

Result

The results of this study will be described through the data, tests of normality of experiment and control group is show in [Table 1](#).

Table 1. Tests of Normality Group Experiments

Group	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Experimental Pre-test	0.132	40	0.078	0.953	40	0.095
Experimental Post-test	0.131	40	0.079	0.930	40	0.016
Control Pre-test	0.125	40	0.114	0.949	40	0.072
Control Post-test	0.108	40	0.200	0.970	40	0.356

Based on the data [Table 1](#) of tests of normality of the experimental group, it can be seen that the value of Sig. in the Kolmogorov-Smirnov column for Pretest shooting data is 0.078 which means 0.078, Post-test shooting is .079 which means 0.079. In accordance with our test criteria, that if the value of Sig. is more than 0.05 then H₀ is accepted. This means that the data is normally distributed. Based on the control group test of normality data, it can be seen that the value of Sig. in the Kolmogorov-Smirnov column for pretest shooting data is 0.114 which means 0.114, post-test shooting is 0.200 which means 0.200. In accordance with our test criteria, that if the value of Sig. is more than 0.05 then H₀ is accepted. This means that the data is normally distributed.

Table 2. Test of Homogeneity of Variance

Parameters	Levene Statistic	df1	df2	Sig.
Based on Mean	0.853	1	78	0.358
Based on Median	0.597	1	78	0.442
Based on Median and with adjusted df	0.597	1	67.887	0.442
Based on trimmed mean	0.911	1	78	0.343

Based on [Table 2](#) the significance based of the mean pretest is 0.358 (0.358) > 0.05, it can be concluded that the shooting variance of the experimental group and the variant shooting of the control group are the same or homogeneous.

Table 3. Descriptive Analysis Results

Group	N	Mean	Std. Deviation	Std. Error Mean
Experimental	40	48.18	4.862	0.769
Control	40	37.12	6.014	0.951

From the statistical group on [Table 3](#), each had 40 subjects, the experimental group's post-test was higher than the control group from the average of 48.18 with 37.12. Then the subjects of the experimental group were better than the control group. It can be concluded that the use of the basic football technique skill training model through the SSG approach is effective to improve and improve basic shooting technique skills in SSB U-12 Year students. Result of independent samples test is show in [Table 4](#). Based on [Table 4](#) it can be seen that the significant value of 2 directions (t-tailed) $0.00 < 0.05$. So that there is a significant difference in score points between the experimental group and the control group. Based on the conclusions above, it can be descriptively said that there is a difference in the effectiveness of applying the basic football technique training model through the SSG approach with conventional training models in improving the basic shooting technique skills of SSB U-12-year students.

Table 4. Tabel Independent Samples t-Test

Levene's Test Equality of Variances		t-test for Equality of Means						
F	Sig.	t	df	95% Confidence Interval				
				Sig. (2-tailed)	Mean Difference	Lower	Upper	
Shooting Variances Equal	0.358	9.037	78	0.000	11.050	1.223	8.616	13.484
Equal Variances	0.853	9.037	74.720	0.000	11.050	1.223	8.614	13.486

Discussion

The condition of the literature from research results related to the Small Sided Games exercise model. The results of the study showed a significant level of effectiveness, but this research was still limited to a few universities. It is very important for all practice sessions especially for students who are 12 years old, the exercise model that emphasizes fun, which contains learning. The learning approach through game activities of the coach can analyze skilled players and less skilled players. In addition, coaches can also improve their individual and tactical abilities through play. The SSG method has the principle of "learning the game of football through playing activities. The principle of learning from games is supported by previous study who cites that the games approach lets kids discover what to do in the game not by your telling them but by their experiencing it (Storm et al., 2022). This means that the play approach allows children to discover what to do in the game by directly experiencing it. While according to other study state the game is the best teacher (Khan et al., 2023; Palczewski & Saabun, 2019). Based on this philosophy, the essential demands of soccer are addressed. The first and most crucial demand requires players to practice what is needed and how it is needed in the game. It means "The game is the best teacher". The basic demands of the most important football require players to practice what they need and what is needed in the game.

The results of the study that showed a sig (2-tailed) value of 0.000 in the Independent Sample t-Test test provide strong evidence of the effectiveness of the Small Sided Games (SSG) model in improving basic football technique skills in SSB Muspan U-12 Year students. This value, which is much lower than the threshold of 0.05, statistically indicates a significant difference between basic technical ability before and after the implementation of SSG exercises. This indicates that SSG not only plays a role in improving technical skills such as passing, dribbling, and shooting, but also effectively accelerates the process of learning and mastering those skills. The fact that SSG can deliver significant results in this context of early age football coaching opens up new insights into the importance of modifying and adapting training methods according to the specific needs of age groups (Ahmed et al., 2023; Song, 2021).

The effectiveness of the SSG training model revealed in this study provides deep insight into the approach to football training at a young age. In line with research small sided games, with its game format that emphasizes intense activity and a focus on individual skills, showed a significant impact in the development of basic football techniques (Corrigan et al., 2023; Reid et al., 2020). This smaller format of play allows younger players to get more ball touch opportunities, which is essential for developing sensitivity and coordination in controlling the ball (Okilanda et al., 2021; Valente et al., 2023). Further, more frequent interaction with the ball in real-game situations improves a player's ability to make decisions quickly and precisely, which is a key skill in football. Therefore, this study not only confirms the effectiveness of SSG in technical improvement, but also highlights the importance of learning through contextualized play in an environment similar to real match situations.

The findings of this study have significant implications for football training practices, particularly in the context of youth development (Buraimo et al., 2022; Gervis & Goldman, 2020; Krill & Peterson, 2023). The effectiveness of the Small Sided Games (SSG) training model in improving basic technical skills of football means that a more focused and intensive approach in real game situations can be more advantageous than traditional drills that may place less emphasis on aspects of individual skills. This suggests that coaches should consider the integration of SSG into their training regimen to maximize the technical development of young players. By emphasizing individual skills in the context of games that are more dynamic and involve quick decisions, SSG helps young players develop a better tactical understanding as well as technical skills. Therefore, these findings encourage a paradigm shift in football training at junior level, emphasizing the importance of training methods that adapt the principles of the game into a format more suitable for skill development at an early age.

4. CONCLUSION

The conclusion that can be drawn from this study is that the Small Sided Games (SSG) training model has significant effectiveness in improving basic football technical skills in young SSB Muspan U-12 Year Old players. The results, demonstrated through a sig (2-tailed) value of 0.000, strongly confirm that there are significant and positive differences in basic technical skills such as passing, dribbling, and shooting, after the application of the SSG training method. The implications are quite broad, indicating that SSG is not only successful in the aspect of technical improvement, but also in accelerating the learning process and mastery of such skills among young players. This method, with its approach that prioritizes the experience of playing in a smaller, interactive format, provides greater opportunities for players to actively engage and develop skills in situations similar to actual matches. These findings recommend SSG as a highly effective training strategy and should be seriously considered by football coaches and educators at youth level, to support the holistic development of football skills in young athletes, promising a more rapid and substantial improvement in their basic technical skills.

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