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Effect Small Side Games (SSG) on Playing Skills in Handball Sports

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ABSTRACT

Small-Side Games (SSG) are the right training method to maximize the talents and achievements of athletes. The purpose of this research was to determine the effect and difference in the effect of SSG with Match Simulation on playing performances in Handball. The method used in this research is experimental. The population of this research was elite athletes in Bandung with a total of 28 athletes. The sample used 14 athletes who were given training using the SSG method and 14 athletes who were given match simulation exercises. The instrument used is HTPE to measure handball playing performances. The results showed that there was a significant improvement from the SSG method and the match simulation training method to the athletes playing performances based on the paired sample t-test at an alpha of 0.05. The percentage increase is 9.5% for the SSG training method and 7.3% for the match simulation training method. The results of the research are based on the independent sample t-test, there was no significant difference between the SSG method and the match simulation method on the handball playing performances. The results of the research concluded that there was a significant increase in the use of the SSG training method and match simulation on handball playing performances and there was no significant increase in the use of the SSG method and match simulation on handball playing performance.

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1. INTRODUCTION

Handball is defined as a game dynamic play with fast involving, among two teams with seven proficient players throwing, catching, and dribbling with aiming hands to try to score goals (Milanese *et al*., 2013).

Handball including in a sport with intensity high, because size field and amount little players possible to play in a manner quickly and alternate Between attack and defense (Póvoas *et al*., 2012). A sports game aims to create a score as much as possible, in creating something opportunity needed something Skills good foundation like catching the ball, throwing the ball, carrying the ball, and passing against. Techniques This is a must-have basic technique controlled by handball players (Manchado *et al*., 2017).

Handball players must coordinate movement with good such as running, jumping, pushing, changing direction, and handball special movements like pass, catch, throw, pass, and blocking opponent (Michalsik *et al.*, 2012).

Technique is a must-have skill for every athlete in the branch of the sport he is engaged in the Game will walk with good if every player capable control technique game. The basic technique is all activity fundamental, so the technical capital good foundation for the athlete will play with good in everything position (Memmert *et al.*, 2009). Although not only technical needs only in determine one's performance but there are other factors as well as mental influences in taking decisions (Saputra *et al*., 2022).

Using method proper exercise could maximize athletes ' talents and achievements until peak performance from something Skills or activity certain needs exists repetition purposeful activities for control Skills (Horns, 2002). One method exercise that can be used to reach the aim of something achievement specifically in branch sports game team character invasion or there is a process attack and defend is method practice Small-Side Games (SSG).

SSG one form exercises used in the teaching-learning process or training sports teams, because they serve component tactical, technical, and other related to performance games (Hoffmann *et al*., 2014). SSG also presents characteristics similar to an organization with formal games or games actually (Davids *et al*., 2013).

Modifying SSG conditions (e.g., sum players per team) can change the characteristics environment in a method that can controllable and manageably push an athlete to do desired movement (Davids *et al*., 2013). Because of that, change systematically in SSG conditions allow the coach to adapt demands of tactics and technique following the aim of practicing or training them.

SSG got defined as a game with limited practice in a space small, often with adapted rules and an amount more players (Owen *et al*., 2004). In matter, this SSG (SSG) could use pattern practice or modified learning like 2 vs 2 or 3 vs 3, etc. SSG this intended to make it easy for the athlete in developing ability in a manner individual as well as to Upgrade athlete performance. In a statement, the intended use of SSG is considered capable of Becoming an alternative in Upgrade Skills in Handball games (Matthys *et al*., 2011).

SSG is one of the solutions in the expected training process that will Upgrade the Skills of playing players, especially handball, because in the SSG, all the factors of the game such as technique, tactics, physical, and mental will train in a manner direct. SSG is one solution urgent for coaches in improving performance.

2. METHODS

The method was descriptive with an approach quantitative. Descriptive is a method of purposeful research for describing or describing in a manner systematic fact with accuracy

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about symptoms certain to be the center of attention for us. The research method used in this study is the experimental method design with The Static Group Pretest-Posttest Design.

2.1. Population and Sample

The population in the study is the whole of Bandung city handball athletes who will compete in PORPROV (Sports Week Province) 2022 with a total of 28 athletes, with a limited age maximum born in 1999. Deep samples study this using a total sampling of 28 handball athletes from the city of Bandung as the sample. The entire sample is divided Becomes two groups with provision group one totaling 14 people and group two totaling 14 people. group one is given SSG treatment and Group Two is the control group.

2.2. Instruments Study

Instruments in the study use the Handball Tactical Performance (HTPE) which is a test to measure skills play handball **(Figure 1)**.

The Handball Tactical Performance Evaluation (HTPE)

Observers :

Team :

Time :

Instructions : Give Tally in the column provided

Research focus :

ITD (Decision Making) : Dribbling, Passing, Catching, controlling the opponent with or without the ball, marking the opponent, etc.

IEM (Motor Execution) : Shooting, Feinting With the Ball, Move Without Ball, Intersave, Blocking, Preventing Shots, etc.

IRA (Result of Action) : Goal, Success in Defending, Success in Attacking, etc.

IVJ (Volume of Play) : Number of Balls Received in One Game.

No	Name	ITD		IEMs		IRAs		IVJ
		Following	It is not following	In accordance	It is not following	In accordance	It is not following	
1								
2								
3								
4								
etc								

$$IVJ = \frac{Number\ of\ balls\ received + JThe\ number\ of\ balls\ intercepted}{25}$$

No.	Name	ITD x 0.4	IEM x 0.2	IRAs 0.2	IVJ x 0.2	Amount X 100	Yield (PG)
1.							
2.							
3.							
4.							
5.							
etc							

Performance Global (PG) = [(ITD x 0,4) + (IEM x 0,2) + (IRA x 0,2) + (IVJ x 0,2)] x 100

Figure 1. Instrument.

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2.3. Steps

The steps were done in three stages namely pre-test, treatment, and post-test. Pre-test and Post-test were done with HTPE test with steps data collection as follows:

(i) Athletes and observers fill in administration especially first.
(ii) Athletes and observers are given explanations and directions during a test.
(iii) Athletes shared into 4 teams each team consisting of 7 players.
(iv) Every team will do 2 x 30-minute matches (1 game) with a time-out every 15 minutes.
(v) Observer divided to be 4 times Rating every match.
(vi) Observer 1 rate group 1 (athletes 1, 2, and 3), observer 2 assesses group 2 (athletes 4, 5, 6, and 7), observer 3 assesses group 3 (athletes 8, 9, 10, and 11), and observer 4 assess group 4 (athletes 12, 13, and 14).
(vii) Every time out or replacement round, the observer changes the assessed group until the match is done and all observers are done evaluating all groups.
(viii) After all, data collected are processed and published results later day.

2.4. Exercise Program

After the Pre-test, the samples were divided Becomes two groups, that is group experimental and the control group, the second group is given a treatment aimed at knowing the influence to be incurred, the treatment given namely the SSG training program for group experiment and simulation match for the control group. Execution of training programs done a week 3 times for 5 weeks. Conducted SSG program is 2 v 2, 3 v 3, and 4 v 4, meanwhile the control group did the exercises with simulation match indeed i.e. 7 v 7.

2.5. Data Analysis

Deep data processing techniques study this using counting with SPSS (Statistical Product and Service Solution) version 26.0. For knowing the influence of each variable, we used a sample t-test in pairs (Paired Sample t-test) and an Independent Sample t-test Posttest to compare the second method practice.

3. RESULTS AND DISCUSSION

3.1. Results

Table 1 shows the average skills playing handball with a mark pre-test of 33.79 incl categories Low with the lowest score of 23.67 including the Very Low category and the highest score is 43.02 (Low) for group SSG, meanwhile for group Simulation Match shows average results Pre-test of 34.03 (Low) with the lowest value is 24.47 (very low) and the highest value is 41.62 (low).

Table 1. Data description.

Group	N	Minimum	Maximum	Means	std. Deviation
SSG pre-test	14	23.67	43.02	33.79	6.69
SSG posttest	14	33.10	52.75	43.29	6.40
Pre Test Simulation	14	24.47	41.62	34.02	6.32
Post Test Simulation	14	32.75	50.05	41.36	5.99

After the treatment is done with method SSG for group experiment and Simulation match for group control, the result of posttest Skills play showing exists improvement. The average value of the SSG Group was 43.29 (Low) with the lowest value being 33.10 (Low) and the

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highest being 52.75 (Medium), which means an experience enhancement of 9.5. And for group simulation matches have an average of 41.37 (Low) with the lowest value being 34.42 (Low) and the highest value being 50.05 (Medium) and have enhancement of 7.34.

Table 2 obtained a mark significance (Sig.) of 0.000. When compared to the criteria taking decision showing mark significance to the group experiment (SSG) from 0.05. H0 is rejected, which means showing exists significant improvement from the exercise program SSG against enhanced Skills play handball.

Table 2. Sample T-test in a pair group experiment.

Experiment (SSG)	t	df	Sig. (2-tailed)	Information
PreTest - PostTest	34.387	13	0.00	Significant

Based on **Table 3**, it obtained a mark significance (Sig.) of 0.000. When compared to the criteria taking decision showing mark significance to the group control (Simulation match) from 0.05. H0 is rejected, which means showing exists significant improvement from the exercise program Simulation Match to enhancement Skills play handball.

Table 3. Sample T-test in a pair group control.

Control (Simulation)	t	df	Sig. (2-tailed)	Information
PreTest - PostTest	19.874	13	0.00	Significant

The analysis used is an analysis of average value results post-test from the second group. Kindly simple procedure analysis this is to compare the average value obtained from the exercise program SSG and exercise program simulation match to Skills play on athlete selection PORDA City of Bandung. **Table 4** shows a sig 2-tailed value of 0.420. following criteria deciding. Thus, H_0 is accepted. It means showing no there is difference significant influence between the SSG exercise program and the exercise program Simulation Match to Skills playing in handball athlete.

Table 4. Independent test.

post-test HTPE	t	df	Sig. (2-tailed)	Information
SSG – SIMULATION	0.819	26	0.420	No Significant

The findings of the data in the study this showing that group experiments using method practice SSG has significant improvement in Skills playing handball. It is caused because the use method practice SSG this more focus on how method athletes take decisions and actions taken in a manner repeated repeat with situation resemble match.

Remember the benefit from use method practice SSG got Upgrade skills and influence performance physical, physiological, and technical (skills repetition) for success in competition (Klusemann *et al*., 2012). Only the use method practice SSG can too for Becomes investigate as a tool identifier talent athlete young, then from that use method SSG exercises are effective for developing Skills technical athlete alone (Radziminski *et al*., 2013).

Based on results of research and data processing regarding the influence of practice SSG against Skills play experience enhancement by 9.5%. That practice SSG has a significant influence on Skills play handball. Where is the value post-test have more average value high in comparison mark pre-test? results prove that SSG delivers contribution positive in enhancement games, both techniques and tactics (Aguiar *et al*., 2012).

Findings research in group control using method practice simulation match have a significant improvement to Skills play handball. It was caused because athlete training

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resembles a match where taking the decision and motor technical athletes do repeated repeat. who complied (Lachaume *et al*., 2017). In the training process of learning handball endeavored to train or study following real situations when cases will compete.

Looking at the results research and data processing regarding the influence of practice simulation match to Skills play has an enhancement of 7.34%. This shows existing enhancement Skills play handball using method practice simulation matches.

The findings of the data in the study this showing that second the using group method practice SSG and methods practice simulation match have enhancement from the initial data (pre-test) to the pos-test. In research here, the analysis in use is the average value posttest from the second stated group no there is a difference significant influence. Among methods practice SSG with simulation match to enhance Skills playing handball.

This happened because the using group method practice SSG and simulation match in the process of implementation of athletes by dong many repetition techniques with intensity resemble match (Matthys *et al*, 2011). When athletes use method practice SSG and simulation match technical or tactical athletes trained during the exercise program. More SSG exercises may apply in a manner of live practice technique tactical and physical, which means players demanded face situation high pressure with repetition techniques and tactics that continue continuously.

This result state that with no exists a significant difference between SSG and simulation match showing that SSG Exercises and simulations match is something the same form of exercise because SSG Exercise form is a form of modification exercise that changes the size of the field, amount player, and change rule game in Exercise (Corvino *et al*., 2016).

Differences the influenced also by several factors first, the second method namely SSG and simulation match (7 v 7) refers to the actual formal game, so the pressure you get on athletes is almost the same, aspect repeated techniques and tactics moment training not even walking far different. Matter this of course will influential to athlete performance in the field (Bakinde, 2022a; Villa *et al*., 2022; Bakinde, 2022b; Singh and Keur, 2022).

The second factor is in the method this athlete and the opponent play so the athletes each other motivation and mutually learn to help develop both. in enhancement, performance athletes are not only influenced by one factor, but by many factors such as technique, tactics, mentality, and strategy.

Third, creative athletes in a matter make decision moment game second method must be very fast because intensity game is already like a formal game, so no there is time to hesitate to taker a decision. Fourth, athletes are in demand to participate actively in the game, to athletes must many do touch the ball. SSG intensity group moment game more the big because the total modified player (more slightly) so the results group experiment (SSG) bit more the big the increase.

4. CONCLUSION

Study this done with focused and purposeful for knowing different effects of the training program SSG basis structured and planned with an exercise program simulation match in a manner structured and planned to Skills playing handball in athlete selection PORDA City of Bandung.

Based on from results of data analysis at alpha 0.05, we can conclude that method SSG exercises provide significant influence to the enhancement of Skills play in branch Handball sports, as well as method practice simulation match. From the second matter, no there is a difference in enhancement Skills significant play among SSG methods and methods simulation

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match, however, in the matter, this is more SSG big the increase from method simulation match to Skills play in branch Handball sport.

5. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.

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