



Small Sided Games as an Innovative Strategy in Football Coaching in Junior High School **Richi Awa Kholiqulhuda¹, Mochamad Ridwan², Sapto Wibowo³**

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Abstract

Learning soccer in junior high schools (SMP) still experiences several problems. Some of them are low student participation, the use of a dominant conventional approach, and the lack of contextual and fun method choices. This causes students to master the basic techniques of the game less effectively. The purpose of this study was to determine how effective the use of Small Sided Games (SSG) is as a creative approach to teaching early age soccer in junior high schools. Quantitative methods were used, with a quasi-experimental pretest-posttest non-equivalent group design. 40 students of grade VIII were the subjects. They were divided into two groups: one that conducted an experiment with SSG, and the other that conducted a control with a conventional method. A validated and reliable basic soccer technique skill observation sheet was the research instrument. The results showed that the experimental group obtained an average increase in score from 60.0 to 64.8, while the control group only obtained an increase in score from 59.3 to 59.6. Both experimental groups showed significant improvements, each with $p < 0.001$ and Cohen's $d = 0.876$, according to the t-test. The result is that SSG-based learning improves students' basic soccer skills better than conventional methods. In addition, SSG-based learning can serve as a strategic alternative for physical education in junior high schools.

Keywords: *Small Sided Games, football, PJOK, quasi-experimental, junior high school*

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INTRODUCTION

Football coaching at the junior high school (SMP) level still faces various obstacles that have an impact on the effectiveness of the learning process (Judge & Smith, 2023). Problems that are often encountered include rigid and monotonous training methods, low active participation of students, and limited facilities (Nacikit et al., 2024). PJOK Sports and Health (PJOK) teachers often use a traditional approach based on drill techniques, without considering the affective and social needs of early childhood students who prefer active, varied, and fun learning (Hongyu & Tasnaina, 2025). Learning activities that focus too much on outcome aspects, such as scoring or win-lose in matches, have the potential to ignore the process of developing basic motor skills and understanding game tactics gradually (Gustian et al., 2023).

In addition, coaching models that focus only on repetitive technical exercises fail to create a learning environment that encourages overall learner engagement (Cohen, 2024).

Students who are not confident or unskilled often feel marginalized and lose the desire to play football (Lange et al., 2024). However, junior high school is an important period in which motor skills, coordination, and social attitudes are built through game interaction (Hasugian et al., 2024). In situations like this, a more flexible learning model is needed that can increase student participation and provide a meaningful play experience (Forbes, 2021).

SSG offers a possible approach to solving problems. Playing soccer in small teams, learners get more touch of the ball, the opportunity to make decisions, and the opportunity to actively interact with their teammates (Putra et al., 2022). SSGs are more flexible to use in a variety of situations, such as limited school facilities (Adiyono et al., 2024). This can be achieved by changing the number of players, the size of the field, and the duration of the game. This method naturally improves learners' technical, tactical, cognitive, and social abilities (Putra et al., 2024). SSG is considered an innovative strategy in PJOK to enrich learning methods and help achieve curriculum goals more comprehensively (Dzhurynskyi et al., 2023). The practice of using SSG is still very limited in schools in Indonesia, especially in junior high schools (Lahope & Fathurrahman, 2024). Most PJOK teachers may not be familiar with this model or do not have the necessary training and resources to implement it in a structured manner (Aidil et al., 2024). It is possible to apply the SSG approach in early childhood football coaching in schools. This is especially true as part of learning innovations in the era of the Independent Curriculum.

The purpose of this study is to evaluate the use of Small Sided Games as a creative strategy for early childhood football coaching in junior high school. The main focus of this study is how effective these strategies are in increasing learners' learning engagement, helping them master basic techniques, and making learning experiences more contextual and enjoyable. It is hoped that the results of this research will provide theoretical contributions and practical illustrations to build football learning methods that are more in line with the needs of junior high school students.

Previous studies have shown that Small Sided Games are more widely used in the context of competitive sports, such as training in clubs or academics (Endriani et al., 2024). Research often emphasizes how SSG affects the physical, technical, and tactical abilities of adolescent or adult players. There have not been many studies that have specifically investigated the use of SSG in formal PJOK settings, especially in junior high schools, which have different features and objectives than professional training environments. According to the results of this study, there is still a lot of room to research the benefits of SSG in education, especially in creating a more inclusive and educational method of learning football.

This study offers a new method that emphasizes the use of pedagogical elements in the use of small games rather than just the performance aspect. This method is in accordance with the needs of PJOK schools and teachers, because they must create contextual, interesting learning activities, and develop various student competencies. The novelty, or novelty, lies in the fact that SSG is incorporated into the framework of educational sports coaching rather than just technical training. This research shows that the emergence of learning strategies that can answer challenges in the field while supporting national education policy measures such as the Independent Curriculum and strengthening the Pancasila Student Profile is important. It is hoped that the results of this research can be used as a reference to develop a more relevant, participatory, and process-oriented football coaching model.

METHOD

This study uses a quantitative approach with a quasi-experimental design of *the pretest-posttest non-equivalent group design*. This design was chosen because the research subjects have formed naturally in two different classes without going through a randomization process. This study aims to compare the effectiveness of football learning with the Small Sided Games (SSG) approach to students' basic skills, compared to the conventional learning approach that is commonly used in PJOK subjects.

SMPN 1 Karangan in Jombang is involved in this study to actively conduct PJOK learning and has adequate sports facilities. Grade VIII students who play football during the even semester of the 2024/2025 academic year are the subjects of this study. For this study, purposive sampling techniques were used. Students must be actively participating in PJOK lessons, have never participated in significant football training outside of school, and be willing to participate fully during the study. The number of subjects was 40 students, who were divided into two groups: the experimental group and the control group, with 20 students each.

This study uses observation sheets of basic football technique skills, such as passing, dribbling, and shooting. This instrument was validated through validity content evaluated by two PJOK expert lecturers and one nationally certified football coach. This instrument was developed with reference to the indicators contained in the Development Manual issued by FIFA and adjusted to the educational context at the junior high school level. However, reliability was tested through interrater techniques with two independent observers. Experts' evaluation of the content validity index (CVI) yielded a value of 0.89, indicating a high level of agreement regarding the instrument items' relevance. Strong consistency between the two observers was confirmed by the inter-rater reliability coefficient, which was 0.86. The research

began with a pre-test test that assessed the initial skills of the entire subject in basic football techniques. After that, the experimental group was given the treatment of soccer learning for eight meetings through the Small Sided Games method. Over the course of a month, there were two meetings every week, each lasting roughly forty minutes. The Small Sided Games employed a variety of configurations, such as 3v3 and 4v4 play settings, to accommodate learning objectives and available space. For each format, the field dimensions were proportionately modified to guarantee active student participation. Games with fewer players, shorter durations, and customized court sizes allow each student to actively interact with game situations and make better touches of the ball. The conventional method, on the other hand, concentrates on technique exercises in a structured manner and regular games without format variations, used to teach control groups.

After the entire learning session was completed, both groups were given the same tools to assess changes in their basic football technique skills. Next, descriptive statistics are used to see how values, means, and standard deviations are spread across each data group. The latest version of Jamovi's software is used to conduct independent t-tests to evaluate the effectiveness of the Small Sided Games approach inferentially. To find out if there was a significant difference between the experimental and control groups, the significance level was set at $\alpha = 0.05$. If conventional learning methods are compared to SSG approaches, this analysis provides an empirical basis for determining whether SSG approaches are more effective at improving students' football skills.

RESULTS AND DISCUSSION

Result

Descriptive statistical analysis was carried out on the pretest and posttest scores of the two groups to provide an initial picture of the distribution of student learning outcome data. The results are presented in Table 1 below.

Table 1 Descriptive Statistics

Descriptives			
	GROUP	PRETEST	POSTTEST
N	1 EXPERIMENT	20	20
	2 CONTROL	20	20
Missing	1 EXPERIMENT	0	0

	2 CONTROL	0	0
Mean	1 EXPERIMENT	60.0	64.8
	2 CONTROL	59.3	59.6
Median	1 EXPERIMENT	60.0	65.5
	2 CONTROL	59.0	59.5
Standard Deviation	1 EXPERIMENT	4.10	4.23
	2 CONTROL	4.92	4.91
Minimum	1 EXPERIMENT	51	55
	2 CONTROL	50	49
Maximum	1 EXPERIMENT	65	72
	2 CONTROL	68	67

The results of descriptive statistics showed that the experimental group obtained an increase in the average score from 60.0 in the pretest to 64.8 in the posttest. In contrast, the control group gained only a small increase from 59.3 to 59.6. This difference shows that the SSG learning model is better than conventional learning methods in improving students' abilities. To ensure that the data is distributed normally, normality tests are performed using the Shapiro-Wilk test. This is a prerequisite for the next parametric statistical test. Table 2 shows the results of the normality test.

Table 2 Normality Test Results (Shapiro-Wilk)

Normality Test (Shapiro-Wilk)		
	W	p
PRETEST	0.973	0.431
POSTTEST	0.968	0.309
Note. A low p-value suggests a violation of the assumption of normality		

According to Table 2, the p-value for both the pretest and posttest variables is greater than 0.05, so the data is normally distributed. Therefore, the normality assumptions have been met, and parametric tests can be used for additional testing.

The Levene test was carried out on pretest and posttest data to find out whether the variance between groups was homogeneous (equivalent). The results are shown in Table 3.

Table 3 Results of the Variance Homogeneity Test (Levene's Test)

Homogeneity of Variances Test (Levene's)				
	F	df	df2	p
PRETEST	0.234	1	38	0.631
POSTTEST	0.569	1	38	0.455
Note. A low p-value suggests a violation of the assumption of equal variances				

There was no significant variation between the experimental and control groups, as shown by the p-value in Table 3, which for both variables was greater than 0.05. Therefore, the homogeneity of variance assumptions are met, and independent t-tests can be resumed.

The independent t-test was used to find out if there was a difference in learning outcomes between groups during the posttest. The test results are presented in Table 4

Table 4 Independent Samples T-Test Results

Independent Samples T-Test						
		Statistic	df	p	Mean difference	SE difference
PRETEST	Student's t	0.524	38.0	0.604	0.750	1.43
POSTTEST	Student's t	3.554	38.0	0.001	5.150	1.45
Note. $H_a \mu_1 \text{ EXPERIMENT} \neq \mu_2 \text{ CONTROL}$						

The test results showed that the posttest results of the experimental group and the control group differed significantly, with a value of $p = 0.001$. The experimental group received an average posttest score of 5.15 points compared to the control group. This shows that toy-based learning methods are significantly more effective than conventional learning methods.

To identify the difference between pretest and posttest scores in the same group, a paired t test is performed. The purpose of this test is to find out how much improvement in learning outcomes occurs after treatment. Table 5 illustrates the test results.

Table 5 Paired Samples T-Test Results

Paired Samples T-Test							
			statistic	df	p		Effect Size
PRETEST	POSTTEST	Student's t	-5.54	39.0	< .001	Cohen's d	-0.876
Note. $H_a \mu \text{ Measure 1 - Measure 2} \neq 0$							

The results of the pretest and posttest of the experimental group differed significantly ($p < 0.001$). The Small Sided Games approach had a significant impact on improving learners' skills, according to Cohen's value $d = -0.876$, which suggests that this method falls into the large category.

Discussion

The results of the study showed that the use of Small Sided Games (SSG) when teaching football in junior high school improved students' skills (Ridwan et al., 2022). Compared to conventional methods, this model demonstrates the ability to create a more active, contextual, and enjoyable learning experience (Mohammed & Attia, 2024). These results are in line with the basic principles of contemporary PJOK which emphasise the importance of actively participating in the game and mastering techniques that develop naturally in situations similar to actual matches (Parra-gonz & Rosa, 2020).

SSG's approach has a major advantage in its small-scale game design. This applies to the number of players, the size of the field, and the duration of the game (Karim et al., 2024). This allows each student to interact directly with the ball, make strategic decisions, and build teamwork. This condition greatly supports the cognitive, motor, and social development of students in junior high school learning.

A more significant improvement in learning outcomes in the group using SSG indicates that this method is more effective in building understanding and basic football technique skills (Atiq et al., 2024). In addition, students' emotional involvement and sense of ownership of the learning process also tend to be higher because they are directly involved in the dynamics of the game (Neel, 2021). This aspect is very important in sports learning, where motivation and interest in learning have a great influence on the achievement of competencies.

Previous research results showing that SSG improves the technical performance and tactical understanding of young players, reinforce these findings (Clemente et al., 2021; Matos et al., 2023). In education, this method is considered to be in harmony with the principles of constructivism because it allows learners to acquire knowledge through hands-on experience and problem-solving in game situations (Mishra, 2023). Thus, SSG not only serves as a training technique, but also as a place of learning that focuses on learners and is well-rounded.

The use of SSG can be a strategic alternative from a curriculum perspective to support the implementation of the Independent Curriculum, which emphasizes flexibility and activity-based learning, as well as strengthening the Pancasila Student Profile (Fatria et al., 2024).

PJOK teachers can use SSG to design adaptive and character-development-oriented learning, as well as facilitate differences in students' abilities in heterogeneous classrooms.

Overall, the results of this study show that the application of more contextual and participatory learning methods, such as SSG, can be a creative solution to the problem of PJOK learning that has been too focused on a one-way instructional approach. SSG also gives learners more time to learn through real-life experiences and makes them more proficient in techniques and tactics.

CONCLUSION

Based on the results of analysis and discussion, it can be concluded that the use of Small Sided Games (SSG) has proven to be effective in improving students' basic skills in playing soccer in junior high school. SSG creates a more active, fun, and contextual learning environment, which effectively increases learner engagement. Compared to conventional learning approaches, SSG offers a more meaningful learning experience.

The results of this study support that the development of PJOK learning strategies, especially those related to sports such as football, is very important. This small-scale game-based method is in line with the idea of active and learner-centered learning. This method also helps implement the Independent Curriculum, which emphasizes flexible and contextual learning. Therefore, it is recommended that SSG be included in PJOK and sports extracurricular activities in junior high schools.

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