



Comparison of Game Situation and Small Side Game in Senior High School on Futsal Learning Skills

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Abstract

This study aims to compare the effectiveness of the Game Situation and Senior high school Sided Games approaches to improving students' futsal playing skills. The method used is a quasi-experiment with a pretest-posttest control group design. The sample consisted of 32 futsal extracurricular students of senior high school Negeri 1 Lembang who were divided into two groups, each receiving treatment for 12 meetings. The measurement instrument used The Construction Performance Assessment Instrument on Futsal Game Performance which has been validated. The results of the Paired Sample T-Test showed a significant increase in futsal playing skills in both groups. However, the results of the Independent Sample T-Test showed no significant difference between the group using the Game Situation approach and the group using Senior high school Sided Games. These findings indicate that both approaches have relatively equal effectiveness in improving students' futsal playing skills, both in terms of basic techniques (passing, control, dribbling, shooting) and tactical aspects (decision making, support, and repositioning). The results of this study reference to the development of contextual, active, and fun game-based physical education sports and physical learning strategies.

How to Cite

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INTRODUCTION

Education in general means the process of life in developing each individual to be able to live and carry out daily life. With education, humans have the opportunity to develop their potential. One way to develop the potential of students in the Education Unit is by providing physical education, sports and health learning (Kurniawan & Hartati, 2016).

Learning Physical Education, Sports and Health is one of the learning that is favored by students at various levels of school. Physical education is one of the developmental aspects of the general education process and the use of individual motor skills voluntarily and beneficially related to reactions, mental, emotional and social. physical education sports and physical is an educational process that uses physical (bodily) activity and Health is used as a tool for holistic change, generally the development of individual learning outcomes of students in physical education sports and physical can be seen in changes in attitudes and behavior or learning outcomes of students (Saril et al., 2023). Physical Education, Sports and Health has an important role in realizing these efforts. One of the important roles of the physical education sports and physical subject is being able to internalize affective values in every learning experience through sports activities (Saril et al., 2023).

Improving physical education can have a positive impact on health-related physical fitness and basic motor skills in children and adolescents. Quality-focused physical education interventions, such as fitness infusion and teaching strategies, have been shown to significantly improve physical fitness and basic motor skills (García-Hermoso et al., 2020).

However, as time goes by, the development of science and technology has had an impact on the development of physical education in Indonesia. This can be seen from the low level of public attention to the importance of physical education for children (Lengkana & Sofa, 2017). A creative physical education teacher will be able to create something new, or modify something that already exists but present it in the most interesting way possible, so that students will enjoy taking physical education lessons (Anas, 2019).

Talking about physical education in Indonesia, there are already many schools, especially high schools that use two curricula, including the 2013 Curriculum (Kurtilas) and the independent curriculum. Futsal is included in the sports game that teachers can apply and develop in schools

through the new curriculum, namely the independent curriculum, because this sport can be played by anyone regardless of age, gender, social level, and is easy for students to play (Holidz et al., 2022).

Futsal sports are currently very popular in the world, not only men but also many women are involved. Especially in adolescence, many children enjoy playing futsal. Now, it is not only in clubs that you can get knowledge about futsal. However, schools also provide a place for students who have the talent to play or students who want to know about futsal in the form of extra-curricular activities (Holidz et al., 2022).

The futsal game has characteristics that are very different from other sports, namely in the movement of the feet, which must be dynamic and agile (Hamdani et al., 2022). Therefore, players in futsal games must move throughout the game. Because futsal is a flexible sport, players must rotate throughout the game. In futsal games there are several basic techniques, players are required to master basic techniques such as passing, control, dribbling, and shooting (Holidz et al., 2022).

In learning, sometimes students cannot implement the material that has been delivered by the teacher. The play approach can be one of the methods of approach in learning. The use of good teaching methods also determines the success of learning, with the right method students will be able to easily master the material given (Agung Nugroho & Devi Catur Winata, 2018).

The play approach is a fun, serious, and voluntary activity, where children are in an unreal or real world (Rini, 2019). Playing is fun because children are bound by something fun, without requiring much thought (Zhu & Chen, 2017). The urge to play is definitely in every human being. It is only natural that games are used for education. Furthermore, (Sukintaka, 1998). States that the feeling of pleasure in playing activities can be used as a vehicle to achieve educational goals. Spontaneous pleasure gives rise to potential in the form of movement and attitude, as well as behavior.

In learning futsal games, you can also use an approach that can be done by teachers. Currently, there are developing physical education learning models that are specifically used for learning game activities. Among them are the tactical approach model and the technical approach model (Festiawan, 2020). In this study, the researcher used a tactical approach model. The tactical approach is a promising alternative that can create a learning atmosphere that can moti-

vate students to always be enthusiastic in the teaching and learning process and achieve a goal of mastering the game (Erland & Budiman, 2018). there are two games that can be used Senior high school sided games and game situations. Senior high school sided games are a developing exercise, by presenting game situations that make players gain mastery of technical, tactical, and physical aspects at once (Hamdani et al., 2022).

Meanwhile, Game Situation is a form of training that can be used to improve skills.(Susilo et al., nd). Students are invited to practice by playing a way that makes them happier and more enthusiastic in training so that they can improve their physical condition. In the implementation of Game Situation. There are several types of games in game situation training, namely starting from 1 vs 1, 2 vs 1, playing with a quarter of the field and a full field (Susilo et al., nd).

This study presents a novelty by directly comparing two game-based learning approaches Game Situation and Small-Sided Games within the context of senior high school extracurricular futsal activities. While previous studies have explored each method individually, there is a lack of research that empirically examines their comparative effectiveness on both technical (passing, control, shooting, dribbling) and tactical (decision making, support, repositioning) aspects in a real school setting. This study also integrates validated performance assessment tools within a 3 vs 3 format, ensuring contextual accuracy in measuring skill improvements.

Based on the description that has been described, the researcher intends to research to find out whether game situation and Senior high school sided games can improve students' futsal game learning skills. Seeing from this background, the researcher is interested in conducting research with the title "Comparison of Game situation and Senior high school sided games on Futsal Game Shooting Learning.

METHODS

The method in this study uses a quantitative approach with a quasi-experimental design in the form of a pretest-posttest control group design. This study aims to compare the effectiveness of two futsal learning approaches, namely game situations and Senior high school-sided games, on improving students' playing skills. Both groups were given a pretest to measure initial abilities, then given interventions according to their respective approaches for 12 meetings, and ended

with a posttest to measure changes in skills.

The population in this study were all students who participated in the futsal extracurricular at senior high school Negeri 1 Lembang in the 2024/2025 academic year, with a total of 35 active students. The sample was determined through a purposive sampling technique, which was selected based on the criteria of active involvement in training and relatively equivalent skill levels. The number of samples used was 32 students, who were evenly divided into two groups: 16 students in the game situation group and 16 students in the Senior high school-sided games group.

The instrument used in this study was The Construction Performance Assessment Instrument on Futsal Game Performance which has been validated using the Delphi technique and Content Validity Ratio (CVR) by five experts, showing a high level of content validity (CVR> 0.50) in the aspects of decision making, skills, position support, and repositioning. The assessment was carried out in a 3 vs 3 game format with a duration of 3 minutes, using a rating scale of 1 to 3, which indicates the frequency of success in each skill indicator.

The intervention program was implemented for one month with a frequency of three times per week. Each meeting was designed to develop technical aspects (control, passing, dribbling, and shooting) and tactical aspects (transition, decision making, and positioning), through training models that were adjusted to the characteristics of each approach. For example, Senior high school-sided games training focused on increasing the intensity of techniques in a narrow space, while game situations were designed to resemble real game conditions with variations in the number of players and tactical scenarios.

Data were analyzed using descriptive and inferential statistical approaches. Descriptive analysis includes calculating the mean value, standard deviation, and distribution of pretest and posttest values. To test the hypothesis, normality (Shapiro-Wilk) and homogeneity (Levene's Test) tests were conducted. Since the data were normally distributed and homogeneous, testing was conducted using paired sample t-test to determine differences within groups, and independent sample t-test to compare results between two groups. Data processing was carried out using Excel and SPSS 25 software (Fadluloh et al., 2024). The results of the analysis showed a significant increase in each group, although no significant differences were found between the two approaches in improving students' futsal playing skills.

RESULTS AND DISCUSSION

Table 1. Descriptive Statistics

Group	N	Mean Pretest	Elementary School Pretest	Mean Posttest	SD Posttest
Game Situation (GS)	16	6.75	1.12	9.69	1.27
Senior high school Sided Game (SSG)	16	7.00	1.18	10.00	1.09
Combined (GS + SSG)	32	6.88	1.14	9.84	1.18

Based on the results of descriptive analysis, it is known that the Game Situation (GS) group obtained an average pretest score of 6.75 with a standard deviation of 1.12, while the average posttest score increased to 9.69 with a standard deviation of 1.27. This shows an increase in futsal playing skills after being given treatment in the form of training with the Game Situation approach.

Meanwhile, in the Senior high school Sided Game (SSG) group, the average pretest score was recorded at 7.00 with a standard deviation of 1.18. After the treatment was given, the average posttest score increased to 10.00 with a standard deviation of 1.09. This also shows a significant increase in skills in the SSG group.

In general, when both groups are combined, the overall average value of the pretest is 6.88 and the posttest is 9.84, which shows that there is a trend of increasing futsal playing skills in all study participants after being given the intervention.

This increase in scores illustrates that both training approaches used, both Game Situation and Senior high school Sided Game, are able to improve the futsal playing skills of extracurricular students positively, although the effectiveness between the two will be further analyzed through inferential statistical tests.

Table 2. Normality Test

	Group	Statistics	Statistics	df	Sig.
Pretest	gs	.259	.893	16	.062
	ssg	.250	.895	16	.067
Posttest	gs	.209	.912	16	.123
	ssg	.250	.910	16	.114

The **Table 2** normality test was conducted using Shapiro-Wilk because the number of samples in each group was <50. This test was conducted on pretest and posttest data in both groups, namely the Senior high school Sided Game (SSG) and Game Situation (GS) groups. The results of the normality test showed that the

significance value (Sig.) in all groups was > 0.05. This indicates that the data is normally distributed, thus meeting the requirements for parametric statistical analysis. Thus, it can be concluded that the data distribution in this study is normal.

The homogeneity test aims to determine whether the variance between two groups is the same or not. The test was conducted using Levene's Test on posttest data between the SSG and GS groups. Based on the output obtained, the significance value of the Levene test is > 0.05, which means that both groups have homogeneous variances. Thus, the research data meets the homogeneity requirements, so that the parametric statistical test can be continued.

Paired Sample t-Test was conducted to determine whether there was a significant difference between the pretest and posttest results in one group of research subjects. Based on the analysis results, the average difference (mean difference) between the posttest and pretest scores was 2.96875 with a standard deviation of 4.74131 and a calculated t value of 35.420. The significance value (Sig. 2-tailed) obtained was 0.000, which is much Senior high schooler than the significance level of 0.05. This shows that there is a very statistically significant difference between the pretest and posttest scores in the group.

Thus, it can be concluded that the training given during 12 meetings in this study had a significant effect on improving futsal game skills. This increase was clearly shown by the significant change in scores from pretest to posttest based on the results of statistical tests. These results support the effectiveness of the training model applied in improving the futsal game performance of the study participants.

Independent Sample t-Test was used to determine whether there was a significant difference between the Senior high school Sided Game (SSG) group and the Game Situation (GS) group in terms of futsal playing ability, both before (pretest) and after treatment (posttest). Before looking at the results of the t-test, a homogeneity of variance test was first carried out using Levene's Test. The test results showed that Levene's significance value for the pretest was 0.629 and for the posttest was 0.211, both of which were greater than 0.05. This indicates that the variance between the two groups is homogeneous, so the analysis was continued using the Equal variances assumed row.

The t-test results for the pretest value showed a t-value of -0.637 with a significance value (Sig. 2-tailed) of 0.529. Because the value is greater than 0.05, it can be concluded that there is no significant difference between the SSG and

GS groups before the treatment is given. This shows that both groups have relatively equal initial abilities.

Meanwhile, the t-test results on the posttest value showed a t-value of -0.752 with a significance of 0.458. This value is also greater than 0.05, so it can be concluded that there is no significant difference between the final results of the SSG and GS groups after being given their respective treatments. In other words, although there was an increase in ability in each group, the comparison between groups did not show a statistically significant difference. This indicates that both training methods, both Senior high school Sided Game and Game Situation, provide a relatively equal effect on improving futsal game skill.

Based on the results of the Paired Sample T-Test, the average difference (mean difference) between the posttest and pretest scores was 2.96875 with a standard deviation of 4.74131 and a calculated t value of 35.420. The significance value (Sig. 2-tailed) obtained was 0.000, which is much Senior high schooler than the significance level of 0.05. This shows that there is a very statistically significant difference between the pretest and posttest scores in the group.

So H_a is accepted and H_o is rejected. This means that there is a statistically significant difference between the pretest and posttest scores using the Game Situation approach and the group using the Senior high school Sided Games approach in improving students' futsal game skills before and after being given treatment.

specific tactical constraints, while the Small-Sided Game involves 3v3 to 5v5 formats on reduced field dimensions, allowing more ball touches and spatial awareness development.

The results of this study indicate that both the Game Situation and Senior high school Sided Games approaches are able to significantly improve futsal playing skills. This is evidenced by a comparison of pretest and posttest scores which show an increase in both groups. However, the comparison between the two methods did not show a statistically significant difference, which means that the effectiveness of both is relatively equivalent in improving students' futsal skill performance.

The increase in skills in both groups is in line with the findings (García-Hermoso et al., 2020) which states that activity-based and contextual physical education learning is able to significantly improve motor skills and fitness. This is reinforced by (Prabowo et al., 2020) which states that Senior high school sided games provide a high frequency of ball touches, increase active player participation, and help in mastering basic futsal techniques.

In the Game Situation group, the increase occurred because this approach involved a game context that resembled a real situation, where students were required to think tactically and quickly in making decisions. According to (Permadi et al., 2023), game situation-based training allows players to experience match conditions directly, thus stimulating skill development in a relevant context. In addition, this approach encourages spontaneous and responsive decision-making, which is important in the fast and dynamic game of futsal (Azharullah, 2022).

Meanwhile, in the Senior high school Sided Games group, this approach provides more space for students to interact with the ball and their teammates in a Senior high schooler space and higher intensity. According to (Hamzah et al., 2024). Senior high school sided games training improves basic technical skills such as passing and shooting because it occurs in a narrow space that requires precision and speed of thinking. This is also in line with the findings of Hamdani et al. (2022) which shows that Senior high school sided games are effective in improving basic techniques and fitness of futsal players simultaneously due to the high intensity of the game.

Both approaches have a positive impact on the development of tactical aspects such as decision making, teamwork, and repositioning. According to (Nugroho & Tomoliyus, 2019), stated that performance measurement in futsal games



Figure 1. Illustration of Game Situation and Small-Sided Game design in futsal training.

As shown in **Figure 1**, the Game Situation design involves scenarios such as 1v1 to 3v3 with

must include aspects of skill, decision making, and team support, all of which have been involved in the training model of this research.

However, the results of the independent sample t-test showed that there was no significant difference between the two methods. This indicates that in the context of extracurricular futsal in the school environment, both Game Situation and Senior high school Sided Games can be used interchangeably or in combination, depending on the learning objectives. According to suggest that variations in learning models that combine technical and tactical approaches can create a more adaptive learning atmosphere and encourage more even skill development.

This finding also has consistency with the results of the study.(Holidz et al., 2022)which shows that the play-based learning approach increases student engagement and provides a fun and effective learning experience in developing futsal skills. Thus, game-based approaches such as Game Situation and Senior high school Sided Games support more contextual, active, and student-centered physical education sports and physical learning, as mandated by the Merdeka Curriculum (Ministry of Education, Culture, Research and Technology, 2022).

CONCLUSION

Based on the results of the study on 32 futsal extracurricular students at senior high school Negeri 1 Lembang, it was concluded that both the Game Situation and Senior high school Sided Games approaches were able to significantly improve futsal playing skills. This was proven through the Paired Sample T-Test which showed a significant increase between the pretest and posttest scores in each group. However, the results of the Independent Sample T-Test showed no significant difference between the two approaches. Thus, both have relatively equal effectiveness in improving technical aspects (passing, control, dribbling, shooting) and tactical aspects (decision making, support, repositioning) in futsal games. The implications of these findings are important for physical education sports and physical teachers, because they show that game-based learning approaches such as Game Situation and Senior high school Sided Games are not only fun but also effective and adaptive to school conditions and student characteristics. From the results of this study, it is recommended that physical education teachers implement both approaches alternately and in a structured manner to provide variation in training, so that students gain a com-

prehensive learning experience. Schools also need to provide support in the form of training for teachers and the provision of adequate facilities and infrastructure to support the implementation of futsal extracurricular activities. For further researchers, it is recommended to test the impact of this approach on a wider population, longer training duration, and involve other variables such as motivation, teamwork, and psychological aspects of students. Thus, the results of this study can reference to the development of learning strategies and strengthening of game-based physical education sports and physical curriculum in the school environment.

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