https://doi.org/10.7251/SSH2602263N **UDC:** 796.332:[316.77:796/799
Original scientific paper ***Originalni naučni rad***

Enhancing Short-Pass Performance And Engagement Through 5 V 5 Small-Sided Games in Young Football Athletes

Yahya Eko Nopiyanto[1], Ipa Sari Kardi[2], Cahyo Wibowo[3], Ibrahim[2], Nur Fathanah[1]
[1]University of Bengkulu, Department of Physical Education, Bengkulu, Indonesia
[2]University of Cenderawasih, Faculty of Sport Science, Jayapura, Indonesia
[3]Satya Wacana Christian University, Faculty of Health Sciences, Salatiga, Indonesia

Correspondence:
Yahya Eko Nopiyanto
University of Bengkulu, Department of Physical Education, Bengkulu, Indonesia, yahyaekonopiyanto@unib.ac.id

Abstract: *This study aimed to examine the impact of 5v5 small-sided games on the short-pass performance and engagement of young football athletes aged 13 to 15. The study employed a one-group pretest and posttest design, consisting of 30 young football athletes. Every participant in the study underwent a six-week intervention consisting of three sixty-minute sessions per week. Each session began with a warm-up, followed by a ten-minute passing technique drill and a thirty-minute small-sided game with new rules to engage all participants. The research data was analyzed using an independent sample t-test. The results showed a statistically significant improvement in short-pass performance following the intervention ($t = -20.694$, $df = 29$, $p < 0.001$). In addition, engagement levels showed a statistically significant increase ($t = -13.861$, $df = 29$, $p < 0.001$) across all measured dimensions. These findings indicate that the 5 vs 5 small-sided games training program is effective in enhancing both short-pass performance and engagement. In conclusion, small-sided games can serve as an effective and practical training strategy to simultaneously develop skill performance and engagement. Practically, coaches can incorporate 5 vs 5 small-sided games into training sessions to simultaneously enhance short-pass performance and increase athletes' engagement.*

Keywords: *engagement, short pass, football, young athletes*

Introduction

The ability to execute basic techniques is a crucial factor that needs to be considered in empowering the potential of young football athletes. The first technique a young athlete needs to master is short passing skills. This technique is crucial because it determines accuracy, timing, and tactical success during both offensive and defensive play (Hakman et al., 2018). Young athletes who possess good short passing skills will demonstrate consistent performance, quick decision-making, and the ability to adapt to various situations during training and matches (Wang et al., 2024). However, it is known that young athletes often struggle to execute consistent short passes under pressure, particularly in tight spaces or during critical moments that require quick decisions.

Relevant research indicates that a team's success is primarily determined by its mastery of passing skills (Tim & Ali, 2023). For young athletes, mastering short passing skills is crucial because it supports technical skills and tactical awareness in the game. The training program implemented by the coach is a significant factor in the level of short-passing mastery achieved by the athletes they coach. Traditional training programs are still predominantly implemented by coaches, thus failing to accommodate the real needs during matches. Traditional passing drills are generally done outside of an actual game, so they don't really show what it's like to be under pressure and how the game changes (Lindsay & Spittle, 2024).

Young athletes usually already have some fundamental technical skills, but they don't employ them consistently when the pressure is on. Athletes frequently fail to comprehend the game situation, make erroneous decisions, and lack precision in passing. Young athletes necessitate authentic game stimuli for the effective transfer of technical talents to a competitive environment. Therefore, conventional training models based on static drills are no longer adequate for the demands of the modern game. Thus, short-pass development must be designed through contextual training and close to real match situations (Clemente & Sarmento, 2020).

Small-sided games (SSG) are a training methodology empirically demonstrated to enhance the technical, tactical, physiological, and physical abilities of young athletes (Clemente et al., 2021). The 5v5 SSG format offers high-

intensity play, more touches of the ball, and more frequent game interactions (Clemente et al., 2022). A study by (Anwar et al., 2024) shown that a diminished number of players necessitates quicker and more precise short passes owing to the constricted playing area. This situation provides an ideal environment for developing short-passing skills. Coaches can change the size of the field, the number of players, and the regulations of the game to fit their needs. These modifications enable players to engage with the ball and one another more intensely, facilitating rapid decision-making and enhancing their ability to manage stress during training (Machado et al., 2024).

Beyond technical aspects, player engagement in training also plays a crucial role (Zou et al., 2024). Engagement is a determining factor in successful learning because it influences an individual's focus, effort, and persistence (Wan et al., 2025). The impact of low athlete engagement in training is reduced creativity, competitiveness, and decreased motivation, ultimately affecting the quality of performance (Jiang et al., 2025). SSG, including the 5v5 format, has been shown to increase player cognitive and emotional engagement by providing a realistic challenge, natural competition, and a match-like rhythm (Yılmaz et al., 2025).

SSG has a favorable effect on both technical and psychological improvement. However, there is a gap in the literature regarding the specific impact of this approach on short-passing performance and athlete engagement. Research investigating the impact of SSG on short passing and engagement among young athletes within a singular intervention is evidently required. The research question, as defined above, is whether small-sided games can improve the short-pass performance and engagement of young football athletes. This study aims to investigate the impact of 5v5 SSG on the short-passing performance and engagement of young football athletes.

Material And Methods

This research employed an experimental method to investigate the effect of 5v5 SSG on short pass performance and engagement in young football athletes. The research design used a one-group pretest-posttest design, with a pretest to assess baseline levels before treatment and a posttest to determine levels after treatment (Capili & Anastasi, 2024). This allowed for more accurate comparisons because it enabled comparisons between the before- and after-treatment periods.

Participants

Participants in this study were 30 young football athletes, selected using a purposive sampling technique (Campbell et al., 2020). Sampling criteria included volunteering and actively participating in training for at least six months, as well as being between 13 and 15 years of age. No sports injuries, and obtaining parental/guardian permission. All participants underwent a six-week intervention, consisting of three 60-minute sessions per week. Each session consisted of a warm-up, a 10-minute passing technique drill, and a 30-minute main training session (5v5 SSG), with modified rules to increase engagement.

Instruments

The short-pass performance test used in this study was adapted from a wall-volley soccer skill test, which requires players to perform repeated passes against a rebound surface (Johnson, 1962). The athlete waits behind the boundary line while holding the ball. The athlete kicks the ball against the backboard and bounces back towards him or the ball becomes uncontrollable. The athlete performs this movement as many times as possible within 39 seconds. The ball must be kicked from behind the boundary line using several kicking techniques learned in soccer. When the ball cannot be controlled, the athlete takes the spare ball that has been prepared, rather than chasing the uncontrolled ball.

The athlete engagement questionnaire was used to assess athlete engagement before and after participating in the SSG. This instrument consists of 20 statements divided into four indicators: cognitive engagement, emotional/affective engagement, behavioral engagement, and agentic engagement, which are widely recognized in the literature as core components of engagement (Reeve et al., 2025). Consists of five statements with a Likert scale (strongly disagree to strongly agree). The mean corrected item–total correlation value was 0.52. The reliability analysis revealed a Cronbach's alpha coefficient of 0.89.

Data analysis

Data normality was tested using the Shapiro–Wilk test, and data homogeneity was tested using the Levene test. A paired-sample t-test was subsequently conducted to determine whether the intervention resulted in a statistically significant difference between pre-test and post-test scores.

RESULTS

The results of this study are presented in several tables, which clearly demonstrate the improvement in athletes' engagement and short-pass performance through the use of SSG training.

Table 1. *Descriptive data on short pass performance*

Test	Mean	Median	Variance	Std deviation	Minimum	Maximum
Pre	28.43	29	18.94	4.35	22	36
Post	38.50	38	13.57	3.68	31	45

Based on the descriptive statistical data presented in Table 1, consistent positive developments in the short passing performance of athletes after receiving the SSG intervention can be identified. The pretest results showed an average score of 28.43 (SD = 4.35) with a score range of 22 to 36; most athletes fell into the moderate to low category. The posttest results showed a significant increase, with an average score of 38.5 (SD = 3.68) and a score range of 31 to 45. This increase indicates that the athletes' abilities have moved into the good and excellent categories. After participating in the SSG training program, there was an increase in ability and performance consistency among athletes. This is indicated by a decrease in the variance value from 18.94 to 13.57.

Table 2. *Tests of Normality*

	Shapiro-Wilk		
	statistic	df	Sig.
Pre	.944	30	.115
Post	.969	30	.507

Table 2 shows the results of the normality test using the Shapiro-Wilk test. Before starting the parametric analysis, this test is needed to ensure that the data meet the assumptions of a normal distribution. The results of the test show that the pretest has a statistical value of 0.944 with df of 30 and a significance value of p of 0.115. In contrast, the posttest has a statistical value of 0.969 with df = 30 and a significance value of p = 0.507. Both the pretest and posttest measurements have a normal distribution, as indicated by the significance values, which are above the alpha threshold of 0.05. These results indicate that the data meet one of the main requirements for the success of the paired sample t-test.

Table 3. *Test of Homogeneity of Variances*

Levene Statistic	df1	df2	Sig.
1.662	1	58	.208

Table 3 presents the results of the Levene test for homogeneity of variance, applied to the short pass performance data. This test is conducted to ensure that the variance between the two data groups (pretest and posttest) is the same or homogeneous. The test results show a Levene statistic value of 1.662 with degrees of freedom of 1 (df1) and 58 (df2), respectively, and a significance value of p of 0.208. There is no significant variance between the pretest and posttest data, as indicated by a significance value greater than 0.05. Therefore, the variance in both data groups is homogeneous. Thus, the data meet the requirements for analysis using a paired sample t-test. Therefore, the variance in both data groups is homogeneous. Thus, the data meet the criteria for analysis using a paired sample t-test.

Table 4. *Paired Sample t-test*

t	df	Sig. (2-tailed)
- 20.694	29	.000

Paired test results, a sample t-test to determine the difference in short pass performance between the pretest and posttest, are shown in Table 4. The results of the analysis show a t-value of -20.694, with degrees of freedom is 29, and the significance value (2-tailed) is 0.000. These results statistically demonstrate that the 5 v 5 format SSG training program is efficacious in improving short-pass performance in young athletes.

Table 5. *Descriptive data on athlete engagement*

Test	Mean	Median	Variance	Std deviation	Minimum	Maximum
Pre	68.9	68	17.33	4.16	62	79
Post	77.8	77.5	24.85	4.96	70	88

Table 5 presents descriptive statistics of athlete engagement before and after participating in the SSG training program. With a mean of 68.9 and a median of 68, pretest measures revealed a comparatively symmetrical distribution of data. Athletes' levels of engagement varied quite uniformly, with a variation of 17.33 and a standard deviation of 4.16. Posttest results showed an increase, with a minimum score of 62 and a maximum of 79, indicating that the athletes' initial engagement level fell within the good category. After six weeks of the SSG intervention, posttest results showed an increase with a mean of 77.8 and a median of 77.5. The variance increased to 24.85 and the standard deviation to 4.96, indicating greater variation among athletes in the program. Engagement levels changed from the better to very good category, with a minimum score of 70 and a maximum score of 88.

Table 6. *Tests of Normality*

	Shapiro-Wilk		
	statistic	df	Sig.
Pre	.960	30	.304
Post	.961	30	.335

Table 6 shows the results of the normality test using the Shapiro-Wilk test for athlete engagement data. The data were tested to meet the normal distribution assumption required for parametric analysis. The results showed that the pretest statistical value was 0.960 with df = 30 and sig 0.304. The posttest statistical value was 0.961 with a df = 30 and sig.= 0.335. Athlete engagement data in the pretest and posttest measurements were normally distributed, as indicated by two significance values above the alpha threshold of 0.05. These results indicate that the data meet the requirements for paired sample t-test analysis and validate the use of parametric tests.

Table 7. *Test of Homogeneity of Variances*

Levene Statistic	df1	df2	Sig.
.680	1	58	.413

Table 7 presents the results of Levene's test for homogeneity of variance, applied to the athlete engagement data. This is a crucial assumption in parametric statistical analysis, and the purpose of this test is to verify that the variance between the pretest and posttest data groups is homogeneous. A significance value significantly greater than 0.05 indicates that there is no significant variance between the pretest and posttest athlete engagement data. Therefore, it can be concluded that the variance in both data groups is homogeneous, which meets the assumption of homogeneity and validates the use of the paired-sample t-test for further analysis.

Table 8. *Paired Sample t-test*

t	df	Sig. (2-tailed)
- 13.861	29	.000

Table 8 showed that the 5 vs 5 format SSG training program is effective in increasing athletes' cognitive, emotional, behavioral, and agentic engagement during the training process. The 5v5 SSG intervention makes a statisti-

cally significant and valuable difference in the development of young football athletes. The SSG training program can be an effective strategy for training young athletes.

Discussion

The findings of this study underscore the importance of implementing 5v5 SSG to improve short pass performance and engagement in young soccer athletes aged 13-15 years. The 5v5 SSG structure increases ball-touch intensity, speed of decision-making, and technical quality, making the implementation of the 5v5 SSG structure effective in improving short pass in young football athletes (Anwar et al., 2024). With a smaller field and fewer players, players engage more frequently in actions such as receiving, controlling, and passing the ball (Halouani et al., 2019). This leads to natural repetition, which significantly improves the quality of short passes. According to other studies, SSG has a significantly higher level of player interaction compared to conventional training methods (Clemente, 2025). Ultimately, this leads to improvements in technical abilities such as passing speed and accuracy (Gunawan & Rahman, 2023).

Additionally, the 5v5 SSG structure creates more tangible time and space pressure, forcing players to scan, control the ball, and pass in a shorter amount of time. These limited conditions help players understand the game situation and choose fast, progressive, or safe passing paths (Xu et al., 2024). Players must also maintain proper body orientation to enable effective ball control and a quality first touch. It has been shown that good ball control under pressure is crucial for improving the quality of short passes (Coutinho et al., 2023).

From a tactical perspective, the 5v5 game has small interaction patterns such as triangles, walls pass, and supporting play. These patterns teach players how to open up space, maintain distance, and create effective passing lanes (Zlojutro et al., 2023). The abilities of players who frequently face situations like this improve when they use short passes to maintain the rhythm of the game. In addition, because the entire team interacts with each other at closer range, communication between players improves, which results in more coordination in short ball play (Sarmento et al., 2018).

Overall, the 5 vs 5 SSG structure creates a training environment full of technical and tactical pressure, while remaining relevant to real-life match situations. SSG is an excellent technique for improving short passing skills in young football athletes due to its high intensity, technical repetition, game pressure, and quick decision-making (Ferraz et al., 2025). Empirical evidence shows that SSG improves technique and accelerates skill transfer from training to matches (Sgrò et al., 2018). Therefore, implementing 5 vs 5 is an effective and proven method for improving short passing performance in youth athlete training.

Because this game format creates an active, intense, and meaningful learning environment, the implementation of SSG has been shown to increase player engagement in young soccer athletes (Pop et al., 2022). Each player in an SSG has more opportunities to participate in technical actions such as passing, dribbling, shooting, moving without the ball, and making tactical decisions (Clemente et al., 2021). The increased physical, cognitive, and emotional engagement during training is directly influenced by the higher frequency of activity (Fernandez-Espinola et al., 2020). SSG ensures that almost all players are involved in the game at all times, unlike 11 vs. 11 games, which tend to make some players less active during particular phases.

In smaller spaces, players must constantly move, communicate, position themselves, and work together to cooperate. This compact game environment keeps players continually engaged, leaving them little time to wait for the ball or be passive (Entezari et al., 2023). Due to the high frequency of actions per minute, SSG significantly increases players' physical and technical stimulation (Han et al., 2025). This is a key factor in boosting engagement: players feel more "in the game," more active, and more mentally and emotionally involved.

For motivation, SSG fosters a friendly yet competitive atmosphere. Young players can become more motivated by playing games that resemble real matches but are scaled down in size, as they can encounter difficulties that are appropriate for their skill level and receive immediate feedback on the game's progress (Romdhani et al., 2023). Other studies suggest that SSG can improve team cohesion, competency, and emotions of autonomy (Yılmaz et al., 2025). These three psychological elements are essential for the best possible participation in sports. Young players are more motivated, concentrated, and willing to take chances when they receive training.

Additionally, SSG increases cognitive engagement, particularly in decision-making (Couto et al., 2022). Rapidly changing game situations require players to constantly study the movements of their opponents and teammates,

activate options, and strategize. This condition keeps players mentally alert and fully engaged in the game. Cognitive engagement is crucial for young players because it accelerates the development of play intelligence, also known as game intelligence, which is difficult to develop with statistical drill techniques (Machado et al., 2024).

Overall, SSG creates a training environment that allows players to engage in more activities, encourages them to do so, and increases their attention levels. SSG is a great way to increase engagement in young soccer athletes due to the high intensity of activity, quick decisions, lots of ball contact, and an enjoyable playing experience (Gok et al., 2023). The learning process and development of technical and tactical skills are also more effective and sustainable with high engagement (Paun et al., 2025).

The results of this study add to the scientific literature on how SSG helps young football athletes with skills and psychology. However, several limitations of this study should be considered. First, generalizability may be limited to a broader group of young athletes due to the small sample size and lack of a control group. Second, the use of a conventional questionnaire instrument to measure athlete engagement may introduce bias. Additionally, because of the brief length of the intervention, this study was unable to evaluate long-term changes associated with engagement development and short-term pass improvement.

These restrictions do not limit its applicability in the actual world. This study demonstrates to coaches that SSG implementation may be a crucial tactic in programs designed to develop young athletes. Coaches can change match formats to alter technical focus, intensity, and engagement. Additionally, this study suggests that incorporating SSG into regular training regimens can help young athletes enhance training efficacy while maintaining the quality of their educational experiences.

Conclusion

Small-sided games with a 5v5 format are an innovative training model for enhancing short-pass performance and engagement in young soccer athletes aged 13-15. However, several limitations of this study should be considered. First, generalizability may be limited to a broader group of young athletes due to the small sample size and lack of a control group. Second, the use of a conventional questionnaire instrument to measure athlete engagement may introduce bias. Additionally, because of the brief length of the intervention, this study was unable to evaluate long-term changes associated with engagement development and short-term pass improvement. Further research is recommended to include decision-making variables, comparisons with other small-sided game formats, and longer durations.

References

anwar, G. M., Hanief, Y. N., Supriatna, S., Azidin, R. M. F. R., Amiq, F., Muslim, B. A., & Carmen, M. (2024). Examining the influence of eight weeks of small-sided games (SSGs) enhancing pass accuracy and eye – foot coordination : a factorial experimental design. *Journal of Physical Education and SPort*, *24*(2), 275–282. https://doi.org/10.7752/jpes.2024.02033

Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters, D., & Walker, K. (2020). Purposive sampling: complex or simple? Research case examples. *Journal of Research in Nursing*, *25*(8), 652–661. https://doi.org/10.1177/1744987120927206

Capili, B., & Anastasi, J. K. (2024). An Introduction to Types of Quasi-Experimental Designs. *American Journal of Nursing*, *124*(11), 50–52. https://doi.org/10.1097/01.NAJ.0001081740.74815.20

Clemente, F. M. (2025). The enjoyment of small-sided games: a narrative review. *Human Movement*, *26*(1), 1–14. https://doi.org/10.5114/hm/197230

Clemente, F. M., Ramirez-campillo, R., & Sarmento, H. (2021). Effects of Small-Sided Game Interventions on the Technical Execution and Tactical Behaviors of Young and Youth Team Sports Players : A Systematic Review and. *Frontiers in Psychology*, *12*, 1–13. https://doi.org/10.3389/fpsyg.2021.667041

Clemente, F. M., & Sarmento, H. (2020). The Effects Of Small-Sided Soccer Games On Technical Actions And Skills : A Systematic Review. *Human Movement*, *21*(3), 100–119. doi: 10.5114/hm.2020.93014

Clemente, F. M., Silva, A. F., Kawczyński, A., Yıldız, M., & Chen, Y. S. (2022). Physiological and locomotor demands during small - sided games are related to match demands and physical fitness ? A study conducted on youth soccer players. *BMC Sports Science, Medicine and Rehabilitation*, *14*, 1–10. https://doi.org/10.1186/s13102-022-00535-w

Coutinho, D., Kelly, A. L., Santos, S., Figueiredo, P., Pizarro, D., & Travassos, B. (2023). Exploring the Effects of Tasks with Different Decision-Making Levels on Ball Control , Passing Performance , and External Load in Youth Football. *Children*, *10*(220), 1–16. https://doi.org/10.3390/children10020220

Couto, M., Rodrigues, J., Figueiredo, L. S., Andre, C., Lira, B. De, Conti, G. De, & Costa, T. (2022). Cognitive processes in small-sided games (Procesos cognitivos en pequeños juegos). *Retos: Nuevas Tendencias En Educación Física*, *44*, 897–906. https://doi.org/10.47197/retos.v44i0.90369

Entezari, M., Shams, A., & Bahram, A. (2023). Effectiveness of Small-Sided Games (SSG) Training on Mental Toughness, Physical Activity Enjoyment and Performance of Soccer Players. *Sport Psychology Studies*, *12*(44), 73–96. https://spsyj.ssrc.ac.ir/article_2578.html?lang=en

Fernandez-Espinola, C., Robles, A. M. T., & Fuentes-Guerra, F. J. (2020). Small-Sided Games as a Methodological Resource for Team Sports

Teaching : A Systematic Review. *International Journal of Environmental Reserach and Public Health*, *17*, 1–21. https://doi.org/10.3390/ijerph17061884

Ferraz, M., Garganta, J., Bagatin, R., & Barreira, D. (2025). Assessing physical , technical , and tactical performance of youth football players in small-sided games : a systematic review. *Retos: Nuevas Tendencias En Educación Física*, *66*, 206–225. doi: 10.47197/retos.v66.110366

Gok, Y., Suel, E., & Soylu, Y. (2023). Effects of different small-sided games on psychological responses and technical activities in young female basketball players. *Acta Gymnica*, *53*, 1–6. https://doi.org/10.5507/ag.2023.006

Gunawan, G., & Rahman, A. (2023). Effect of 5 VS 5 Small Sided Games (SSGs) Training on Passing Accuracy of U-16 Football Athletes. *Journal of Physical and Outdoor Education*, *5*(2), 50–59. https://doi.org/10.37742/jpoe.v5i2.204

Hakman, A., Vaskan, I., Kljus, O., Liasota, T., Palichuk, Y., & Yachniuk, M. (2018). Original Article Analysis of the acquisition of expertise and mastery of physical skills for performing techniques by young footballers. *Journal of Physical Education and Sport*, *18*(2), 1237–1242. https://doi.org/10.7752/jpes.2018.s2184

Halouani, J., Ghattasi, K., Bouzid, M. A., Rosemann, T., Nikolaidis, P. T., Chtourou, H., & Knechtle, B. (2019). Physical and Physiological Responses during the Stop-Ball Rule During Small-Sided Games in Soccer Players. *Sports*, *1*(117), 1–8. https://doi.org/10.3390/sports7050117

Han, X., Li, L., Chen, J., Xu, W., Trybulski, R., & Clemente, F. M. (2025). Comparing The Effects of Small-Sided and Medium-Sided Soccer Games on Physical Fitness Adaptations in Untrained Men : A Randomized Controlled Study. *Journal of Sports Science and Medicine*, *24*, 142–153. doi: 10.52082/jssm.2025.142

Jiang, C., Razak, N. A., & Rasyid, N. M. (2025). Need-supportive coaching and engagement in Chinese high school football players : a serial mediation model. *Frontier in Psychology*, *January*, 1–12. https://doi.org/10.3389/fpsyg.2024.1466985

Johnson, J. R. (1962). *The development of a single-item test as a measure of soccer skill*.

Lindsay, R., & Spittle, M. (2024). The adaptable coach – a critical review of the practical implications for traditional and constraints-led approaches in sport coaching. *International Journal of Sports Science & Coaching*, *19*(3), 1240–1254. https://doi.org/10.1177/17479541241240853

Machado, G., González-víllora, S., Roca, A., & Teoldo, I. (2024). Developing cognitive and motor decision-making skills through tactical principles and small-sided games in youth soccer. *International Journal of Performance Analysis in Sport*, *24*(5), 444–463. https://doi.org/10.1080/24748668.2024.2321039

Paun, G., Enoiu, R. S., & Dima, M. D. (2025). Small-Sided Games in Youth Football : Advancing Technical – Tactical Performance and Social Inclusion for Sustainable Development. *Sustainability*, *17*, 1–18. https://doi.org/10.3390/su17219563

Pop, R.-M., Grosu, V. T., Grosu, E. F., Zadic, A., Mata, L., & Dobrescu, T. (2022). The Effects of Small-Sided Games and Behavioral Interventions on the Physical and Motivational Outcomes of Youth Soccer Players. *International Journal of Environmental Research and Public Helath*, *19*, 1–12. https://doi.org/10.3390/ijerph192114141

Reeve, J., Basarkod, G., & Ryen, H. (2025). Specialized Purpose of Each Type of Student Engagement : A Meta - Analysis. In *Educational Psychology Review* (Vol. 37, Issue 1). Springer US. https://doi.org/10.1007/s10648-025-09989-z

Romdhani, Z., Ceylan, H. I., Hammami, R., Sahli, F., Dhahbi, W., Souissi, N., Zghibi, M., Oliveira, R., Morgans, R., & Nikolaidis, P. T. (2023). Small-sided-games with coaches ' verbal encouragement have a positive effect on aerobic performance , mood state , satisfaction and subjective effort in male semi-professional soccer players. *Journal of Mens's Health*, *20*(2), 1–10. https://doi.org/10.22514/jomh.2024.018

Sarmento, H., Clemente, F. M., Harper, L. D., Teoldo, I., Owen, A., Figueiredo, A. J., Sarmento, H., Clemente, F. M., Harper, L. D., Costa, T., Owen, A., & Figueiredo, A. J. (2018). Small sided games in soccer – a systematic review. *International Journal of Performance Analysis in Sport*, 1–57. https://doi.org/10.1080/24748668.2018.1517288

Sgrò, F., Bracco, S., Pignato, S., & Lipoma, M. (2018). Small-Sided Games and Technical Skills in Soccer Training: Systematic Review and Implications for Sport and Physical Education Practitioners. *Journal of Sports Science*, *6*, 9–19. https://doi.org/10.17265/2332-7839/2018.01.002

Tim, T., & Ali, A.-Y. (2023). Greater numbers of passes and shorter possession durations result in increased likelihood of goals in 2010 to 2018 World Cup Champions. *PLoS ONE*, *18*(1), 1–12. https://doi.org/10.1371/journal.pone.0280030

Wan, B., Huang, H., Sha, X., Zhong, C., & Shui, Y. (2025). Adolescent Athlete Engagement and Team Cohesion in Football : A Moderated Mediation Model with Gender-Based Insights. *Behavioral Sciences*, *15*(9), 1–17. https://doi.org/10.3390/bs15091264

Wang, B., Wan, B., Chen, S., Zhang, Y., Bai, X., Xiao, W., Tang, C., & Long, B. (2024). A Systematic review of the factors that affect soccer players ' short - passing ability — based on the Loughborough Soccer Passing Test. *BMC Sports Science, Medicine and Rehabilitation*, *16*(96), 1–17. https://doi.org/10.1186/s13102-024-00880-y

Xu, Q., Silva, R. M., Qi, K., Ma, D., Li, T., & Clemente, F. M. (2024). Physiological and locomotor variations of 3v3 and 5v5 small-sided games soccer formats : A 4-month study on sedentary young adults. *Sports Science, Exercise, and Helath*, *107*(1), 1–16. https://doi.org/10.1177/00368504231224606

Yılmaz, O., Jahrami, H., Batalik, L., Trabelsi, K., Ammar, A., & Soylu, Y. (2025). Verbal encouragement in coaching : enhancing small-sided game performance in youth basketball players. *Frontiers in Psychology*, *16*, 1–9. https://doi.org/10.3389/fpsyg.2025.1512803

Zlojutro, N., Eler, S., Joksimovic, M., Eler, N., Markovic, S., Kukric, A., & Goranovic, K. (2023). Kinematic parameters and metabolic power in elite soccer players : A small sided a large sided games comparison. *Frontiers in Physiology*, *14*(April), 1–8. https://doi.org/10.3389/fphys.2023.1150713

Zou, Y., Wang, Z., Zhang, S., Hu, J., Liu, H., & Silva, G. (2024). Development and initial validation of the Engagement in Athletic Training Scale. *Frontier in Psychology*, 1–14. https://doi.org/10.3389/fpsyg.2024.1402065

Primljen: 20. maj 2026. / Received: May 20, 2026
Prihvaćen: 18. avgust 2026. / Accepted: August 18, 2026

This work is licensed under a **Creative Commons Attribution-NonCommercial 4.0 International License**.