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Small-Sided Games Training on Improving the Passing Skills of High School Futsal Players

Aldi Pratama Putra, Rachmat Kasman, Ians Aprilio
[1, 2, 3] Department of Education and Sports, Universitas Negeri Makassar, Indonesia

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ABSTRACT

The lack of variety in training methods often hinders the optimization of basic technical skills, particularly passing, among school-level futsal players. Scientific evidence is essential to determine the effectiveness of specific methods in significantly enhancing player performance. This study aims to: (1) determine the effect of small-sided games (SSG) training on improving the passing skills of futsal players at High School 5 Barru; (2) assess passing skill conditions without SSG training; and (3) analyze the difference in effectiveness between the experimental group and the control group. This research employed a quasi-experimental design with a pre-test and post-test. The study population consisted of all 30 futsal players at High School 5 Barru. Using a total sampling technique, the entire population was included in the study. Data was collected through passing skill tests conducted before and after the treatment period and subsequently analyzed using the t-test. The findings revealed that: (1) small-sided games training had a significant effect on improving passing skills (t_count 76.860 > t_table 2.144); (2) the control group showed no significant improvement (t_count 0.201 < t_table 2.144); and (3) a significant difference in skill enhancement existed between the two groups (t_count 17.210 > t_table 2.048). This study provides a practical contribution for coaches and physical education teachers in selecting effective training methods. Small-sided games are scientifically proven to improve technical skills within dynamic game situations, offering a superior alternative to traditional, repetitive drills.

Corresponding Author:

Aldi Pratama Putra,
Department of Education and Sports, Universitas Negeri Makassar, Indonesia
Email: putraaldipratama81@gmail.com

1. INTRODUCTION

Sport is a fundamental physical activity that involves structured body movement, both to improve fitness and maintain physical health (Martín-Rodríguez et al., 2024; Mileva & Zaidell, 2022). Over time, sport has transformed into an integral part of the modern lifestyle, encompassing people of all ages, from children to the elderly. In

Indonesia, one sport that has experienced rapid acceleration in popularity and growth is futsal (Kustiawan et al., 2024).

Futsal is not just a physical activity but also a highly sought-after means of education and achievement (Hudain et al., 2025; Mappaompo et al., 2025). As a game that can be played indoors or outdoors, futsal offers a similar playing sensation to soccer, but at a higher intensity (Albalad-Aiguabella et al., 2025; Borges et al., 2022; Usman et al., 2025). Its existence also serves as a symbol of national unity that transcends ethnicity, religion, and race and has expanded its popularity to include women at the international level.

Success in futsal is determined by a team's ability to create opportunities and score as many goals as possible against the opponent (Lovato & Barreira, 2025; Rodrigues et al., 2025). To achieve this goal, a well-developed synergy between various supporting aspects is required, including physical readiness, technical mastery, tactical intelligence, and mental toughness. Without comprehensive mastery of these aspects, maximum performance in competitive matches will be difficult to achieve (Mendes et al., 2022).

In schools, extracurricular futsal activities, such as those at High School 5 Barru, serve as crucial platforms for fostering student achievement. Although the team exhibits a strong training spirit and actively participates in district- and provincial-level tournaments, observations indicate significant obstacles to on-field performance. The primary identified problem is the players' poor basic technical skills, which directly impact the team's effectiveness. The most prominent technical issue is poor passing skills. Initial survey results indicate that approximately 70% of players frequently make passing errors, both in terms of accuracy and control of kick power. As a result, the flow of play is often disrupted, and the ball is easily controlled by the opponent, indicating that the players' basic skills remain below expected competition standards.

Analysis of this situation indicates that poor passing skills are driven by a lack of variety in the training methods used. Players are rarely exposed to training situations that mimic real-life match conditions, resulting in a lack of technical adaptability. Therefore, innovation and variation in more effective training programs are needed to systematically optimize players' technical abilities (Arede et al., 2026). As a solution to these problems, the Small Sided Games (SSG) method emerged as a training approach that offers novel technical and tactical stimulation. SSG is a modified game with a smaller number of players and a smaller field size, designed to increase the frequency of player interaction with the ball (Arslanoglu et al., 2024; Ouertatani et al., 2023). This method allows players to pass and make decisions more frequently in highly dynamic situations, mimicking the pressure of a real match (Firmana et al., 2023).

Scientifically, the application of SSG has been proven effective in improving tactical understanding and overall ball control through intensive interaction. By integrating this method into the extracurricular program at High School 5 Barru, it is hoped that there will be significant transformations in the quality of passing and teamwork. This study aims to empirically test the extent to which this innovative training method can be a concrete solution for improving the performance of futsal athletes at the school level.

2. METHOD

This research employs a quantitative approach with experimental methods to test the effect of specific treatments on research variables under controlled conditions. The design used is a pretest-posttest control group design, involving two groups of research subjects. Through this design, each group will be given a baseline measurement (pretest) to identify baseline abilities and ensure equivalence between the experimental and control groups before the intervention is administered.

The research is scheduled to last two months, from October to November 2025. All data collection will be conducted at the High School 5 Barru, South Sulawesi. This location was selected based on the technical requirements of the research to ensure the effectiveness of the planned experimental method.

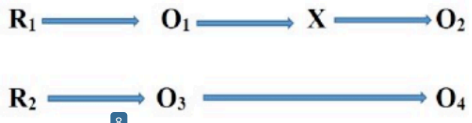

Figure 1. Pretest-Posttest Control Group Design

The primary instruments used in this research data collection were the short pass and overhead serve skills tests. The short pass test instrument has undergone validity testing, with a coefficient of 0.66 and a reliability level of 0.69, thus being deemed suitable for use in measuring the research variables. The use of this standardized instrument aims to ensure the accuracy and consistency of data obtained throughout the research process.

The data collection procedure involved two stages: a pretest to determine the subjects' initial abilities before treatment, and a posttest to measure the results after the intervention. The treatment consisted of a systematically designed training program using a hanging ball and resistance band, spanning 16 sessions. The comparison between the pretest and posttest data will be analyzed to determine the effectiveness of the training program in improving the subjects' serving skills.

The data analysis technique in this study was conducted quantitatively with the aid of SPSS software to ensure the accuracy of statistical calculations. The analysis stage began with descriptive analysis to provide a systematic overview of the characteristics of the research data. Next, prerequisite tests were conducted, including a normality test to determine data distribution and a homogeneity test to ensure equal population variance. Finally, hypothesis testing was conducted to draw significant research conclusions.

3. RESULTS AND DISCUSSION

Results

The effect of small-sided games training on improving futsal players' passing skills

This study investigates the efficacy of small-sided games (SSG) as a strategic pedagogical intervention to enhance the technical proficiency of futsal players, with a specific focus on passing accuracy and execution. By utilizing a quasi-experimental

framework, the research evaluates the transition from traditional, isolated drills to a more dynamic, game-based training environment that replicates the high-pressure constraints of competitive play.

Table 1. Summary of Hypothesis Test Results (Paired Sample T-Test)

Variable	Mean Difference	T_Count	T_table	Sig. (2-tailed)	Conclusion
Futsal Passing Skills	33.93	76.86	2.144	0	H1 Accepted (Significant)

Data analysis shows that the implementation of the small-sided games training program significantly contributed to improving the passing skills of futsal players at High School 5 Barru. This is statistically demonstrated by the calculated t-value of 76.860, which far exceeds the t-table value of 2.144, and is supported by a significance value of 0.000, which is below the 0.05 threshold. This finding confirms the rejection of the null hypothesis (H_0) and the acceptance of the working hypothesis (H_1), indicating a significant difference in performance between the pre- and post-intervention stages.

This improvement in technical ability is explicitly reflected in the comparison of mean scores, where the post-test score showed a 33.93-point increase compared to the pre-test score. This success indicates that the dynamic and intensive characteristics of small-sided games training effectively hone players' accuracy and ball control in game situations. Therefore, this method is recommended as an efficient training approach to optimize passing quality in high school futsal athletes.

The influence of passing skills on the extracurricular futsal team of High School 5 Barru without implementing small-sided game training

In the absence of small-sided games training, the development of passing skills among the extracurricular futsal players at High School 5 Barru tends to remain stagnant, as traditional instructional methods often lack the situational intensity required for technical mastery. Without the dynamic constraints and rapid decision-making cycles provided by game-based simulations, players primarily rely on static repetitions that do not translate effectively to the high-pressure environment of a competitive match. Statistical analysis confirms this lack of progression, indicating that the absence of specialized intervention results in no significant improvement in passing accuracy or tactical fluency. Consequently, relying solely on conventional practice routines limits the players' ability to optimize their technical potential, highlighting a critical need for more innovative pedagogical approaches within the school's athletic program.

Table 2. Control Group Hypothesis Test Results (Paired Sample T-Test)

Variable	Mean Difference	T_Count	T_table	Sig. (2-tailed)	Conclusion
Passing Skills (Control)	0.27	0.201	2.114	0.844	H_0 Accepted (Not Significant)

The data analysis results for the control group showed no significant effect on the passing skills of extracurricular futsal students at High School 5 Barru without the application of the small-sided games method. Statistically, the calculated t-value of 0.201 was significantly smaller than the t-table value of 2.114, with a significance level of 0.844, which is above the 0.05 threshold. This finding implies the acceptance of the null hypothesis (H_0) and the rejection of the working hypothesis (H_1), which confirms that there is no significant difference in ability between the pre-test and post-test results in this group.

Although there was a slight increase in the average score of 0.27 points, this margin does not have sufficient statistical power to be categorized as a positive performance improvement. This demonstrates that without intervention in the form of a structured and specific training program such as small-sided games, players' technical passing skills tend to stagnate or experience no significant development. These results also strengthen the research's position that the use of active training methods is crucial in optimizing the potential of athletes in the school environment.

The effect of small-sided game training is more effective than without training in the control group on improving the passing skills of futsal players

The comparative analysis reveals that small-sided game (SSG) training yields a significantly greater improvement in the passing skills of futsal players compared to the stagnant performance observed in the control group. While players subjected to the SSG intervention benefited from increased ball contact, spatial awareness, and realistic tactical pressure, those in the control group demonstrated no statistically significant technical growth. The substantial variance in outcomes underscores that the integration of dynamic, game-based training environments is far more effective for motor skill acquisition than traditional methods or the absence of specialized intervention. These findings validate the superiority of SSG as a high-impact training modality, providing empirical evidence that situational complexity is essential for optimizing technical proficiency in school-level athletes.

Table 3. Independent Sample T-Test

Group	Post-test Average	T_Count	T_table	Sig. (2-tailed)	Conclusion
Experiment (A)	14.27	17.21	2.048	0	H_1 Accepted (There is a Significant Difference)
Control (B)	32.86				

The results of the comparison test between the experimental and control groups showed that the application of the small-sided games method was significantly more effective in improving the passing skills of futsal players compared to the group that received no special treatment. This is evidenced by the t_count value of 17.210, which is significantly greater than the t-table of 2.048, with a significance level of 0.000, which is below the 0.05 threshold. This finding confirms a significant difference in effect, with

the group that participated in the structured training program showing significantly more consistent technical development than the control group.

Comparatively, the experimental group's superiority was evident in the higher final average score, indicating that the intensity and dynamics of the small-sided games optimally stimulated the players' coordination and passing accuracy. Meanwhile, the control group without intervention tended to show no significant progress over the same time. Therefore, it can be concluded that intervention through small-sided games training is a highly effective and measurable strategy for the High School 5 Barru extracurricular futsal team to improve the quality of their collective play.

Overall, the application of the small-sided games training method to the experimental group yielded significantly superior results compared to the untreated control group. This was demonstrated by the average post-test passing skill score of 32.86, confirming that the structured training intervention effectively and optimally improved the technical performance of the High School 5 Barru futsal extracurricular team.

Discussion

Effectiveness of Small-Sided Games (SSG) Intervention

The implementation of a small-sided games (SSG) training program at SMAN 5 Barru has yielded a statistically significant improvement in players' passing skills, as evidenced by a t_count of 76.860, which far exceeds the t_table value of 2.144. This empirical success is further quantified by a substantial 33.93-point increase between the pre-test and post-test scores. Such results align with the fundamental principles of motor learning theory, which suggests that skill acquisition is optimized when learners are exposed to high-frequency repetitions within a variable environment (Frank et al., 2024). The data confirms that SSG serves as a high-impact intervention, bridging the gap between theoretical training potential and practical technical mastery.

From a technical perspective, the efficacy of this model is rooted in its dynamic and intensive characteristics, which reflect the Constraints-Led Approach (CLA) in sports pedagogy. By reducing the number of players and pitch size, SSG naturally increases the frequency of ball touches and forces athletes to navigate complex, time-pressure decision-making cycles. This mirrors the findings of Dellal et al., who argued that small-sided formats replicate the physiological and technical demands of real match play more accurately than isolated drills (Klingner et al., 2022). Consequently, players do not merely practice a movement; they refine their accuracy and ball control in a contextualized setting that demands constant spatial awareness and tactical adjustment.

Furthermore, the significant disparity in outcomes between the experimental and control groups underscores the limitations of traditional, non-situational training methods. While the control group remained stagnant, the SSG group's progress illustrates the concept of representative learning design, where training tasks are designed to contain the same key cues and pressures found in competition. This study reinforces existing literature suggesting that game-based methodologies facilitate a more robust transfer of skills from practice to the pitch (Bainbridge et al., 2022). By integrating these scientific findings, coaches and educators at High School 5 Barru can

transition toward evidence-based curricula that prioritize situational intelligence as much as technical execution.

Comparative Analysis with the Control Group

The lack of significant technical progression in the control group underscores the limitations of conventional training routines that lack structured, innovative interventions. Statistical analysis reveals that while the group experienced a marginal average score increase of 0.27 points, the significance value of 0.844—well above the standard 0.05 threshold—indicates that this change was negligible and lacked statistical power. This stagnation aligns with the Law of Diminishing Returns in athletic training (Riera-Prunera, 2024), which suggests that without the introduction of new, challenging stimuli or "progressive overload," an athlete's skill level will plateau as the body and mind adapt to familiar, low-intensity stressors.

This data reinforces the theoretical framework of deliberate practice, as proposed by Zheng, which argues that expertise and skill development are not merely products of experience but of highly specific, goal-oriented practice designed to address technical weaknesses (Zheng, 2026). In the control group, the absence of the small-sided games (SSG) treatment meant that players were not exposed to the increased ball contact or the environmental constraints necessary to trigger neuroplasticity and motor refinement. Consequently, the results confirm that traditional or unstructured training environments often fail to provide the "desirable difficulties" required to move a player beyond their current baseline of proficiency.

Ultimately, these findings emphasize that active and evidence-based training methods are indispensable for optimizing athletic potential within the school environment. The contrast between the two groups supports the ecological dynamics perspective, which posits that skill emerges through the interaction between the athlete and the environment. Without the situational complexity and rapid feedback loops inherent in SSG, the control group's passing ability remained tethered to a static state. This reinforces the argument that physical education programs must transition away from passive or repetitive drills toward pedagogical models that actively engage the athlete's cognitive and technical capacities simultaneously (Cereda, 2023; Martín-Rodríguez & Madrigal-Cerezo, 2025).

Comparative Advantages and Practical Implications

The results of the Independent Sample T-Test provide robust empirical evidence for the superiority of the small-sided games (SSG) method, yielding a t_count of 17.210 and a significance level of 0.000. This statistically significant margin confirms that the experimental group achieved a level of technical consistency that far exceeded the performance of the control group. Such findings align with the Transfer-Appropriate Processing (TAP) theory, which suggests that learning is most effective when the cognitive and physical demands of training closely mirror those of the target performance (Franks et al., 2000; Ly et al., 2023). By simulating the "chaos" of a real

match, SSG ensures that the passing skills acquired are not just mechanical but functional and resilient.

From a pedagogical standpoint, the consistent development observed in the SSG group supports the non-linear pedagogy framework, which views the athlete as a complex system that learns through exploration and adaptation. Unlike the control group's traditional training, which often relies on linear, predictable drills, SSG introduces varying constraints that force players to constantly recalibrate their passing accuracy and coordination. This mirrors the research of Clemente et al., who established that small-format games serve as a catalyst for technical fluency because they maximize "active learning time," ensuring that every minute of practice contributes directly to the enhancement of collective play (Clemente et al., 2021).

Ultimately, this study concludes that structured training interventions through small-sided games represent a highly effective and measurable strategy for athletic development. This method is strongly recommended for coaches and extracurricular instructors to optimize player coordination and passing precision within an efficient timeframe. By integrating SSG into the curriculum, educators can leverage the Zone of Proximal Development (ZPD), providing athletes with challenges that are sufficiently difficult to stimulate growth yet structured enough to ensure mastery (Frøland et al., 2025). These results provide a definitive scientific basis for transitioning toward game-based methodologies to improve the overall quality of school-level futsal programs.

This research makes a significant contribution to the development of sports science by strengthening the theory regarding the effectiveness of game-based learning methods in improving athletes' technical skills. The findings provide empirical evidence that the dynamic and intensive characteristics of small-sided games training are significantly more effective in improving accuracy and ball control compared to unstructured training. Furthermore, the resulting statistical data provides a valid reference for the significance of training interventions on the passing skills of futsal players at the high school level.

Practically, this research presents a measurable and efficient training strategy for extracurricular futsal coaches, particularly at High School 5 Barru, to optimize the quality of the team's collective play. Concrete recommendations are provided regarding the use of small-sided games as an instrument to stimulate coordination and pass accuracy in real-life match situations to avoid technical stagnation. For educational institutions, the results of this study encourage the optimization of athlete potential through the implementation of scientifically tested active training methods and serve as a basis for developing more effective extracurricular curriculums.

4. CONCLUSION

This study concludes that the application of the small-sided games (SSG) method is significantly more effective in improving the passing skills of futsal players compared to conventional training methods or without special intervention. This is empirically proven through statistical tests that show a very contrasting increase in scores between the experimental group (t_count 76.860) and the control group which tends to be

stagnant (t_count 0.201). Technically, the effectiveness of SSG lies in its ability to create dynamic training situations, increase the frequency of ball touches, and train players' decision-making in conditions that resemble real matches. Therefore, the SSG method is highly recommended for coaches and physical education teachers at High School 5 Barru as an innovative and scientifically based solution to optimize players' technical abilities in a more efficient time compared to traditional repetitive training.

As a recommendation, futsal coaches are encouraged to adopt the small-sided games method as a core training material to efficiently improve players' passing and coordination skills in dynamic situations. Schools are expected to facilitate the use of this scientifically tested game-based training method to optimize athletes' potential in extracurricular activities. Furthermore, future researchers are encouraged to expand this study by exploring other technical variables such as shooting skills or defensive strategies, as well as expanding the research subjects to strengthen the generalizability of the findings in the future.

REFERENCES

Albalad-Aiguabella, R., Navarrete-Villanueva, D., Mainer-Pardos, E., Villanueva-Guerrero, O., Muniz-Pardos, B., & Vicente-Rodríguez, G. (2025). Physical training considerations for futsal players according to strength and conditioning coaches: A qualitative study. *Sports*, *13*(4), 126. https://doi.org/10.3390/sports13040126

Arede, J., Ribeiro, J., Ferraz, A., Travassos, B., Sarmento, H., Adriano Gomes, S., & Leite, N. (2026). In-game physical performance and maturity status in youth futsal: implications for national team development program selection process. *International Journal of Performance Analysis in Sport*, 1-16. https://doi.org/10.1080/24748668.2025.2522503

Arslanoglu, C., Celgin, G. S., Arslanoglu, E., Demirci, N., Karakas, F., Dogan, E., ... & Kucuk, H. (2024). An effective method of aerobic capacity development: Combined training with maximal aerobic speed and small-sided games for amateur football players. *Applied Sciences*, *14*(19), 9134. https://doi.org/10.3390/app14199134

Bainbridge, K., Shute, V., Rahimi, S., Liu, Z., Slater, S., Baker, R. S., & D'Mello, S. K. (2022). Does embedding learning supports enhance transfer during game-based learning?. *Learning and Instruction*, *77*, 101547. https://doi.org/10.1016/j.learninstruc.2021.101547

Borges, L., Dermargos, A., Gorjão, R., Cury-Boaventura, M. F., Hirabara, S. M., Abad, C. C., ... & Hatanaka, E. (2022). Updating futsal physiology, immune system, and performance. *Research in Sports Medicine*, *30*(6), 659-676. https://doi.org/10.1080/15438627.2021.1929221

Cereda, F. (2023). A Modern Pedagogical Approach in The Subject of Physical Education. *Physical Education and Sports: Studies and Research*, *2*(2), 126-141. https://doi.org/10.56003/pessr.v2i2.265

Clemente, F. M., Afonso, J., & Sarmento, H. (2021). Small-sided games: An umbrella review of systematic reviews and meta-analyses. *PloS one*, *16*(2), e0247067. https://doi.org/10.1371/journal.pone.0247067

Firmana, I., Subarjah, H., Mahendra, A., Nuryadi, N., & Sofyan, D. (2023). Improving football playing skills through teaching games for understanding: A small-sided games approach. *Journal Sport Area*, *8*(2), 184-194. https://doi.org/10.25299/sportarea.2023.vol8(2).12508

Frank, C., Kraeutner, S. N., Rieger, M., & Boe, S. G. (2024). Learning motor actions via imagery—perceptual or motor learning?. *Psychological Research*, *88*(6), 1820-1832. https://doi.org/10.1007/s00426-022-01787-4

Franks, J. J., Bilbrey, C. W., Lien, K. G., & McNamara, T. P. (2000). Transfer-appropriate processing (TAP). *Memory & Cognition*, *28*(7), 1140-1151. https://doi.org/10.3758/BF03211815

Frøland, T., Heldal, I., & Ersvæ, E. (2025). Towards a Tasks-Interactions-Environment (TIE-SSG) Framework Guiding Integration of Serious Games in Education for Enhanced Practical, Clinical Competences. In *European Conference on Games Based Learning* (Vol. 2, pp. 920-928). Academic Conferences International Limited.

Hudain, M. A., Hasan, M. S., Kasmad, M. R., & Jamaluddin, J. (2025). Tactical Approach with Drilling Method on Shooting Ability of Futsal Extracurricular Participants in Elementary Schools. *ETDC: Indonesian Journal of Research and Educational Review*, *4*(3), 920-931. https://doi.org/10.51574/ijrer.v4i3.3410

Klingner, F. C., Huijgen, B. C., Den Hartigh, R. J., & Kempe, M. (2022). Technical–tactical skill assessments in small-sided soccer games: A scoping review. *International Journal of Sports Science & Coaching*, *17*(4), 885-902. https://doi.org/10.1177/17479541211049532

Kustiawan, A. A., Hidayatullah, M. F., Purnama, S. K., Umar, F., Adi, P. W., Nurhidayat, N., ... & Larasati, M. (2024). Development of basic futsal skills test instruments. *Retos*, *59*, 1055-1064. https://doi.org/10.47197/retos.v59.107297

Lovato, V., & Barreira, J. (2025). Analysis of team timeouts in high-performance futsal matches: when to call and what to expect?. *International Journal of Performance Analysis in Sport*, 1-12. https://doi.org/10.1080/24748668.2025.2499347

Ly, D. P., Newman, E. J., & Bernstein, D. M. (2023). Repetition effects in memory and truth assessments through the lens of transfer-appropriate processing. *Memory*, *31*(3), 328-345. https://doi.org/10.1080/09658211.2022.2154805

Mappaompo, M. A., Vaisal, V., & Usman, A. (2025). Teaching Style on Learning Outcomes of Dribbling the Ball in Extracurricular Futsal Games in High School. *ETDC: Indonesian Journal of Research and Educational Review*, *5*(1), 107-120. https://doi.org/10.51574/ijrer.v5i1.4057

Martín-Rodríguez, A., & Madrigal-Cerezo, R. (2025). Technology-enhanced pedagogy in physical education: Bridging engagement, learning, and lifelong activity. *Education Sciences*, *15*(4), 409. https://doi.org/10.3390/educsci15040409

Martín-Rodríguez, A., Gostian-Ropotin, L. A., Beltrán-Velasco, A. I., Belando-Pedreño, N., Simón, J. A., López-Mora, C., ... & Clemente-Suárez, V. J. (2024). Sporting mind: the interplay of physical activity and psychological health. *Sports*, *12*(1), 37. https://doi.org/10.3390/sports12010037

Mendes, D., Travassos, B., Carmo, J. M., Cardoso, F., Costa, I., & Sarmento, H. (2022). Talent identification and development in male futsal: a systematic review. *International journal of environmental research and public health*, *19*(17), 10648. https://doi.org/10.3390/ijerph191710648

Mileva, K. N., & Zaidell, L. (2022). Sport and exercise science and health. In *Health studies: An introduction* (pp. 85-124). Singapore: Springer Singapore. https://doi.org/10.1007/978-981-16-2149-9_4

Ouertatani, Z., Selmi, O., Marsigliante, S., Aydi, B., Hammami, N., & Muscella, A. (2022). Comparison of the physical, physiological, and psychological responses of the high-intensity interval (HIIT) and small-sided games (SSG) training programs in young elite soccer players. *International journal of environmental research and public health*, *19*(21), 13807. https://doi.org/10.3390/ijerph192113807

Riera-Prunera, C. (2024). Diminishing returns. *Encyclopedia of quality of life and well-being research* (pp. 1804-1808). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-031-17299-1_735

Rodrigues, M., Ramos, A., Leite, N., Ribeiro, J. N., Araújo, D., & Travassos, B. (2025). Decoding futsal offensive game moments: an in-depth qualitative study with expert coaches. *International Journal of Performance Analysis in Sport*, *25*(2), 256-270. https://doi.org/10.1080/24748668.2024.2407232

Usman, A., Pratama, M. R., & Arimbi, A. (2025). Analysis of the Relationship Between Emotional Intelligence and the Motivation of Extracurricular Futsal Students to Middle School. *ETDC: Indonesian Journal of Research and Educational Review*, *5*(1), 157-168. https://doi.org/10.51574/ijrer.v5i1.4197

Zheng, G., Wang, Y., & Du, J. (2026). A dual-path framework for enhancing student engagement and learning outcomes in sports education: Integrating technology acceptance, self-regulation, and self-efficacy. *PLoS One*, *21*(3), e0345809. https://doi.org/10.1371/journal.pone.0345809

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