COMPETITOR:
JURNAL PENDIDIKAN KEPELATIHAN OLAHRAGA
e-ISSN: 2657-0734 & p-ISSN: 2085-5389 || Volume 17, Number 3, 2025 || P.2577-2582

The Effect of Ball Handling Training on Improving Basic Dribbling Technique of Basketball Players at Samudra Muda Basketball Club, East Tanjung Jabung Regency

Marcela Leanita[1A-E*], Hendri Munar[2B-D], Anggel Hardi Yanto[3B-D]

[1,2,3] Universitas Jambi, Jambi, Indonesia

nitamarsela027@gmail.com[1*], hendrimunarfik@unja.ac.id, anggelhardiyanto@unja.ac.id

ABSTRACT

This study aims to determine the effect of ball handling training on improving the basic dribbling technique of basketball students at Samudra Muda Basketball Club, East Tanjung Jabung Regency. This study used a quantitative descriptive approach with a pre-experimental design, specifically a group pretest-posttest design. The population consisted of 15 male students who were members of the Samudra Muda Basketball Club. The sample comprised 10 male students selected using a purposive sampling technique based on predetermined criteria. The instrument used was a zigzag dribbling test for basketball. Data collection was conducted through 16 training sessions over 4 weeks, with a frequency of 3 times per week. Data analysis used a paired sample t-test with SPSS 26. The results showed a significant difference between pretest and posttest scores. The pretest mean score was 27.30, while the posttest mean score was 40.10, showing an improvement of 12.80 points. The t-test results showed t-count (-12.551) > t-table (2.262) with a significance value of p = 0.000 < 0.05.

ARTICLE HISTORY
Received: 2025/09/26
Accepted: 2025/10/02
Published: 2025/10/20

KEYWORDS
Ball handling;
Dribbling technique;
Basketball;
Training effect;
Motor skills.

AUTHORS' CONTRIBUTION
A. Conception and design of the study;
B. Acquisition of data;
C. Analysis and interpretation of data;
D. Manuscript preparation;
E. Obtaining funding

Cites this Article : Leanita, Marcela; Munar, Hendri; Yanto, Anggel Hardi. (2025). The Effect of Ball Handling Training on Improving Basic Dribbling Technique of Basketball Players at Samudra Muda Basketball Club, East Tanjung Jabung Regency. **Competitor: Jurnal Pendidikan Kepelatihan Olahraga**. 17 (3), p.2577-2582

INTRODUCTION

Basketball is one of the most popular sports among students and the general population, offering numerous benefits for both physical health and social-mental skill development (Mariati, 2020). The sport requires mastery of fundamental techniques that form the foundation for effective game performance. Dribbling represents one of the most crucial basic skills in basketball, enabling players to maintain ball possession while moving, evading opponents, and creating scoring opportunities (Widyantoro et al., 2021). However, many players still struggle with proper ball control during movement, necessitating appropriate training methods to enhance these capabilities (Prasetyo & Sukarmin, 2017).

Marcela Leanita[1A-E*], Hendri Munar[2B-D], Anggel Hardi Yanto[3B-D]
nitamarsela027@gmail.com[1*]

Recent studies have emphasized the importance of fundamental skill development in basketball training programs. Idris et al. (2019) demonstrated that systematic ball handling training significantly improves dribbling performance by enhancing coordination and ball control abilities. Similarly, research by Dinat et al. (2023) found that ball handling exercises effectively develop hand-eye coordination and motor reflexes essential for basketball performance. These findings align with Pramudya (2015) work, which showed measurable improvements in dribbling speed and accuracy following structured ball handling interventions.

Despite extensive research on basketball skill development, several limitations persist in current training approaches. Many coaching programs focus primarily on game situations without adequate attention to fundamental ball manipulation skills (Rizhardi, 2020). Additionally, inconsistent training methods and insufficient practice frequency often result in suboptimal skill acquisition rates (Putri & Umar, 2020). The gap between theoretical knowledge and practical implementation of ball handling training remains evident in many basketball programs, particularly at grassroots levels, where systematic training protocols may be lacking.

This study addresses the specific question of how structured ball handling training affects basic dribbling technique improvement among basketball players. The research objectives are to evaluate the effectiveness of a systematic ball handling training program and to provide empirical evidence for optimal training protocols. The novelty of this research lies in its comprehensive approach to measuring dribbling improvement through standardized assessment methods and its focus on a specific demographic of developing players in East Tanjung Jabung Regency.

METHODS

This study employed a quantitative descriptive approach using a pre-experimental design, specifically the one group pretest-posttest design (Firmansyah & Dede, 2022). The research was conducted at the East Tanjung Jabung Regency Sports Hall from May 23 to June 26, 2025. The study design allowed for direct comparison of participant performance before and after the training intervention, providing clear evidence of program effectiveness.

The population consisted of 15 male students who were active members of the Samudra Muda Basketball Club in East Tanjung Jabung Regency, representing students from SMPN 5, SMAN 5, and SMKN 1. The sample comprised 10 male students selected through purposive sampling based on specific criteria, including active club participation, consistent training attendance, and willingness to complete the full 16-session program. Sample size was determined considering the manageable group size for intensive skill training and the availability of qualified participants meeting all inclusion criteria.

Data collection utilized the zigzag dribbling test, a standardized assessment tool for measuring basketball dribbling proficiency (Nurhasan in Widyantoro et al., 2021). The

Marcela Leanita[1A-E*], Hendri Munar[2B-D], Anggel Hardi Yanto[3B-D]
nitamarsela027@gmail.com[1*]

assessment evaluated 12 technical aspects of dribbling performance, including body positioning, ball control, movement coordination, and execution consistency. Scoring ranged from 12-48 points with categories of Poor (12-21), Fair (22-30), Good (31-39), and Excellent (40-48). The training program consisted of eight specific ball-handling exercises: tap drill, neck circles, waist circles, leg circles, combination movements, figure-8 patterns, low dribbling, and speed dribbling.

Data analysis employed a paired sample t-test using SPSS 26 software to determine significant differences between pretest and posttest scores (Ghozali, 2021). Preliminary analyses included normality testing using the Shapiro-Wilk test and homogeneity testing using Levene's test to ensure appropriate statistical procedures. The significance level was set at $\alpha = 0.05$, with effect size calculations to determine the practical significance of observed improvements.

RESULTS AND DISCUSSION

Descriptive Analysis Results

The descriptive analysis revealed substantial improvements in dribbling performance following the ball-handling training intervention. Pretest results showed a mean score of 27.30 (SD = 4.35) with scores ranging from 20.00 to 34.00 points. The distribution indicated that 60% of participants scored in the "Fair" category (22-30 points), 30% achieved "Good" ratings (31-39 points), and 10% scored in the "Poor" range (12-21 points). No participants initially achieved "Excellent" ratings, indicating significant room for improvement in fundamental dribbling skills.

Table 1.
Descriptive Statistics of Pretest and Posttest Scores

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Pretest	10	20.00	34.00	27.30	4.35
Posttest	10	36.00	46.00	40.10	3.00

Posttest results demonstrated marked improvement with a mean score of 40.10 (SD = 3.00) and scores ranging from 36.00 to 46.00 points. The distribution shifted dramatically, with 40% of participants achieving "Excellent" ratings (40-48 points) and 60% scoring in the "Good" category (31-39 points). No participants scored below the "Good" category, representing a complete elimination of "Fair" and "Poor" performance levels. This distribution change indicates the substantial effectiveness of the ball-handling training program (Nurrochmah & Yusuf, 2021).

Statistical Analysis Results

Normality testing using Shapiro-Wilk revealed that both pretest ($p = 0.913$) and posttest ($p = 0.311$) data followed normal distributions, as p-values exceeded 0.05. Homogeneity testing using Levene's test confirmed equal variances between groups ($p = 0.247 > 0.05$), satisfying the assumptions for parametric statistical analysis. These preliminary analyses validated the use of paired sample t-test procedures.

Marcela Leanita[1A-E*], Hendri Munar[2B-D], Anggel Hardi Yanto[3B-D]
nitamarsela027@gmail.com[1*]

Table 2.
Paired Sample T-test Results

Variable	Mean Difference	Std. Deviation	t-value	df	p-value
Pretest - Posttest	-12.80	3.22	-12.551	9	0.000

The paired sample t-test revealed significant differences between pretest and posttest scores ($t = -12.551$, $p < 0.001$). The mean improvement of 12.80 points represents a practically significant enhancement in dribbling performance. Cohen's d calculation yielded an effect size of 3.97, indicating an extremely large practical effect according to standard interpretation guidelines. These results provide strong evidence for the effectiveness of the ball-handling training intervention.

Training Program Effectiveness Discussion

The significant improvements observed in this study align with previous research demonstrating the effectiveness of systematic ball handling training. Sudianto & Septiadi, (2018) found similar results in their comparison of ball handling versus small ball training methods, with both approaches showing significant improvements in dribbling performance. However, the current study's effect size ($d = 3.97$) exceeds typical values reported in basketball skill training research, suggesting particularly effective program design and implementation.

The progression from predominantly "Fair" ratings to "Good" and "Excellent" categories reflects the comprehensive nature of the training program. The eight-exercise protocol systematically addressed different aspects of ball control, from basic manipulation skills (tap drill, circles) to dynamic movement patterns (figure-8, speed dribbling). This multifaceted approach likely contributed to the observed improvements across all performance categories. Research by Idris et al. (2019) supports this finding, demonstrating that varied ball-handling exercises enhance different aspects of dribbling proficiency.

Table 3.
Performance Category Distribution Before and After Training

Category	Pretest (%)	Posttest (%)	Change
Excellent (40-48)	0	40	+40
Good (31-39)	30	60	+30
Fair (22-30)	60	0	-60
Poor (12-21)	10	0	-10

The training frequency of three sessions per week over four weeks provided optimal stimulus for skill acquisition without overtraining effects. This schedule aligns with motor learning principles, suggesting that distributed practice enhances skill retention compared to massed practice sessions. Hapsari et al. (2018) reported similar findings with comparable training frequencies, supporting the effectiveness of this periodization approach for fundamental skill development.

The substantial improvements observed in this study have important implications for basketball coaching practice. The elimination of "Poor" and "Fair" performance categories suggests that systematic ball handling training can effectively address

fundamental skill deficiencies common among developing players. Coaches should consider implementing similar structured programs as foundational components of basketball skill development curricular (Idham et al., 2023).

The study's findings support the integration of specific ball-handling exercises into regular training routines rather than relying solely on game-situation practice. The eight-exercise protocol provides a practical framework that coaches can adapt to different skill levels and training contexts (Iqroni, 2022). The progression from stationary to dynamic exercises mirrors optimal skill acquisition sequences identified in motor learning research.

Furthermore, the standardized assessment approach used in this study offers coaches a reliable method for evaluating dribbling proficiency and tracking improvement over time. Regular assessment using similar protocols could enhance training program effectiveness by providing objective feedback on skill development progress.

CONCLUSION

This study demonstrates that structured ball handling training significantly improves basic dribbling technique among basketball players at Samudra Muda Basketball Club. The 16-session program resulted in substantial performance improvements, with mean scores increasing from 27.30 to 40.10 points and effect sizes indicating extremely large practical significance. All participants achieved "Good" or "Excellent" performance levels following the intervention, compared to initial distributions showing 70% scoring in "Fair" or "Poor" categories.

The research provides empirical evidence supporting the implementation of systematic ball handling training in basketball skill development programs. The eight-exercise protocol offers coaches a practical framework for enhancing fundamental dribbling skills, while the assessment methodology provides objective measures for tracking progress. These findings have important implications for basketball coaching practice and suggest that structured fundamental skill training should be prioritized in player development programs.

Future research should investigate the long-term retention of skills acquired through ball handling training and examine the transfer effects to game performance situations. Additionally, comparative studies examining different training intensities and exercise variations could further optimize program design for various player populations and skill levels.

REFERENCES

Dinat, W. W., Iqbal, R., & Aminudin, R. (2023). Pengaruh latihan ballhandling terhadap kemampuan dribbling pemain basket SMAN 5 Padang. Sport Science Journal, 6(1), 15–24.

Firmansyah, D., & Dede, A. (2022). Metode penelitian pendidikan: Teori dan aplikasi. CV Widina Bhakti Persada Bandung.

Ghozali, I. (2021). Aplikasi Analisis Multivariate Dengan Program IBM SPSS 26 (10th ed.). Badan Penerbit Universitas Diponegoro.

Hapsari, A., Dwikusworo, E. P., & Hidayah, T. (2018). Status Ketrampilan Bermain Bola Basket Pada Club Nbc (Ngaliyan Basketball Center) Kota Semarang. JSSF (Journal of Sport Sciences and Fitness), 2(1), 10–27.

Idham, Munzir, & Salbani. (2023). Meningkatkan Teknik Dasar Dribbling Dalam Permainan Bola Basket Dengan Training Game Pada Kelas Vi Di Sd Negeri 24 Banda Aceh. Jurnal Ilmiah Mahasiswa, 4(1), 1–12.

Idris, A., Jasmani Kesehatan dan Rekreasi, P., & Kunci, K. (2019). Pengaruh Latihan Ballhandling Height Frekuensi dan Barrier Training Terhadap Kemampuan Dribbling Bolabasket. Jurnal Pendidikan Dan Olahraga, 2(2), 16–18.

Iqroni, D. (2022). Media Shooting Multiguna Olahraga Bola Basket Untuk Pembelajaran Mahasiswa. Jurnal Olahraga Dan Kesehatan Indonesia, 2(2), 77–82. https://doi.org/10.55081/joki.v2i2.593

Mariati, Sari, dkk. (2020). Tinjaun Kemampuan Teknik Dasar Atlet Bola Basket. Jurnal Patriot, 2, 825–836.

Nurrochmah, S., & Yusuf, E. A. (2021). Survei Kemampuan Keterampilan Teknik Dasar Permainan Bolabasket Pemain Putra Junior Kabupaten Ponorogo Tahun 2020. Sport Science and Health, 3(7), 451–466. https://doi.org/10.17977/um062v3i72021p451-466

Pramudya, A. R. (2015). Pengaruh Latihan Ballhandling Terhadap Kemampuan Dribble Pada Tim Bolabasket Puteri Sma N 1 Pati Tahun 2015. JSSF (Journal of Sport Science and Fitness), 4(3), 3–6.

Prasetyo, D. W., & Sukarmin, Y. (2017). Pengembangan model permainan untuk pembelajaran teknik dasar bola basket di SMP. Jurnal Keolahragaan, 5(1), 12–24. https://doi.org/10.21831/jk.v5i1.12758

Putri, N. I., & Umar, A. (2020). Kemampuan Teknik Dasar Bola Basket Atlet Putra Klub Genta Kota Pariaman. Jurnal Pendidikan Dan Olahraga, 3(4), 15–21.

Rizhardi, R. (2020). Pengaruh Latihan Ballhandling Terhadap Hasil Dribbling Bola Basket Pada Siswa Eksrakurikuler Smayadika Lubuk Linggau. Wahana Didaktika : Jurnal Ilmu Kependidikan, 18(1), 7–15. https://doi.org/10.31851/wahanadidaktika.v18i01.3693

Sudianto, A. M., & Septiadi, F. (2018). Pengaruh Latihan Ballhandling Dan Latihan Menggunakan Bolakecil Terhadap Keterampilan Dribbling Bolabasket Smp. Kependidikan, 20, 20–26.

Widyantoro, S., Muryadi, A. D., & Dwijayanti, K. (2021). Pengaruh Metode Latihan Figure Eight With Dribbling Dan Metode Latihan Neck, Waist and Leg Circles Terhadap Hasil Dribble Pada Hurricane Basketball Club Di Kecamatan Gemolong. JURNAL ILMIAH PENJAS (Penelitian, Pendidikan Dan Pengajaran), 7(2), 1–12. https://doi.org/10.36728/jip.v7i2.1542