HALAMAN OLAHRAGA NUSANTARA (HON)
Jurnal Ilmu Keolahragaan

Volume 7 No II
Tahun 2024

ISSN 2614-2775 (Print)
ISSN 2621-8143 (Online)

# THE EFFECT OF DRILL SMASH EXERCISES ON SMASH ACCURACY IN BADMINTON EXTRACULICULAR PARTICIPANTS

**Aditya Dwi Candra[1], Septyaningrum Putri Purwoto[2], Heni Yuli Handayani[3], Agus Himawan[4]**
STKIP PGRI Bangkalan[1,2,3,4]
adityadcandra272@gmail.com

***Abstract***
*The smash is one of the most crucial shots in badminton, requiring a combination of strength, speed, and accuracy to achieve maximum effectiveness. Drilling practice has been recognized as an effective method for improving the technical skills of badminton players. This study aims to evaluate the effectiveness of smash drilling practice on smash accuracy in badminton players. This research is an experimental study involving 12 students from SMPN 3 Satu Atap Galis - Maduran - East Java - Indonesia. The smash drilling practice sessions were designed to sharpen the technical and tactical aspects of the smash through structured repetitions over a period of 6 weeks. The research results indicate that the experimental group undergoing smash drilling practice experienced a significant improvement in smash accuracy. The average pre-test score was 18.75, and the average post-test score was 23.08. The normality test yielded p-values of 0.068 for the pre-test and 0.324 for the post-test, indicating that the data follow a normal distribution at a 5% coefficient. The paired sample t-test resulted in a p-value of 0.000 with a coefficient of 0.05, indicating a significant difference. These findings indicate that drilling smash training is effective in improving badminton players' technical skills, especially in terms of smash accuracy.*
***Keywords:*** *Badminton; Smash; Drill*

Submitted : 06th of April 2024
Accepted : 15th of June 2024
Published : 17th of June 2024
Correspondence Author: Aditya Dwi Candra, STKIP PGRI Bangkalan, Indonesia.
E-Mail: adityadcandra272@gmail.com

DOI http://dx.doi.org/10.31851/hon.v7i2.15544



## INTRODUCTION

Sports are bodily movements that have an impact on the entire body (Pane, 2015). Sports are activities that can minimize Deconditioning Syndrome, a collection of symptoms that lead to a decline in functional capacity in various body systems due to reduced body movement over an extended period. (Rejeki et al., 2020). Sports themselves offer many health benefits and enhance the body's endurance. They serve as entertainment and are beneficial to the human body. Sports involve both physical and mental activities (Purba et al., 2021).

HALAMAN OLAHRAGA NUSANTARA
JURNAL ILMU KEOLAHRAGAAN
Jendral A. Yani Street Lorong Gotong Royong 9/10 Ulu Palembang South Sumatera
email jurnal: jurnalhon@univpgri-palembang.ac.id
situs web: http://www.univpgri-palembang.ac.id

Badminton, also known as shuttlecock, is a racquet sport that is highly popular in many countries, especially in Asia. It has become a widely enjoyed sport among the public and attracts interest from various age groups. (Ariadi & Iqbal, 2020). Historically, this game involves using a racquet to hit a shuttlecock over a net into the opponent's court, with the aim of making the shuttlecock unreturnable or causing it to land in the opponent's court. (Ilham Irawan et al., 2020; Syaiuddin & Indardi, 2023). Badminton is a game played by 2 or 4 individuals who attempt to hit the shuttlecock into the opponent's court area, aiming to prevent the opponent from returning it to their own court area (Subarkah & Marani, 2020).

In badminton, the game can be played either as singles, where one player competes against another, or doubles, where two players compete against two opponents (Majid et al., 2021). In badminton, there are various stroke techniques used, ranging from those executed at low, high speeds to even employing tricks to deceive opponents (Ahmad Saleh et al., 2022). The basic techniques in badminton consist of five techniques, namely the serve, smash, overhead, drive, and drop (Ahmad Saleh et al., 2022; Bahri & Permadi, 2019; Hidayat, 2022; Retnoningsasy, 2020).

To win a match, one needs points, and the most effective technique to score points is by using the smash technique (Syaiuddin & Indardi, 2023). Smash is a powerful hit, aimed sharply at the blind spots of the opponent's court with force and precision (Ahmad Saleh et al., 2022). The smash is key to scoring points. It is an overhead shot, directed downward with maximum force, The characteristics of this shot are its power and the rapid speed of the shuttlecock towards the court floor (Arizzi & Kustoro, 2022). The types of smash shots include a) full smash, b) slice smash, c) around-the-head smash, and d) backhand smash (Arizzi & Kustoro, 2022).

To achieve accuracy in smash results, a smash drilling training method is needed, aiming to score points in badminton. A drill training method is an approach that involves the continuous repetition of specific movements or skills to enhance

HALAMAN OLAHRAGA NUSANTARA
JURNAL ILMU KEOLAHRAGAAN
Jendral A. Yani Street Lorong Gotong Royong 9/10 Ulu Palembang South Sumatera
email jurnal: jurnalhon@univpgri-palembang.ac.id
situs web: http://www.univpgri-palembang.ac.id

proficiency and precision in their execution. The drill training method is a teaching technique that involves repeated exercises to instill specific habits (Prajakusuma et al., 2016). The drill method is an activity that involves repeating the same action seriously to strengthen an association or perfect a skill, making it permanent (Suardiana, 2021). The drill or practice method is a learning technique that involves repetitive and continuous exercises to master memory skills or specific abilities, ensuring that learning objectives are achieved (Fahrurrozi et al., 2022). Many previous studies have stated that the smash drilling training method can improve the accuracy of smash shots. There is an improvement in smash accuracy skills using the smash drill method with shuttlecock box targets among male players aged 10-14 (Wardani et al., 2022). Conducting drill training 16 times with a frequency of 6 times per week can improve the smash accuracy of young badminton players (Prestasi, 2017). The drill training method also impacts the improvement of students' body movements, as the stimulation from rapid movements helps students become accustomed to performing backhand clear shots, indicating that the drill training method affects the accuracy of backhand clear shots at SMK Negeri 3 Jepara (Dwijaya et al., 2020). Referring to the background and previous literature reviews, the purpose of this study is to examine the effect of smash drill training on the smash accuracy of badminton athletes.

## METHOD

This study uses a quantitative approach with an experimental research design “one groups pre-test-post-test design”. Experimental research is intended to determine whether there are effects on the subjects who receive the treatment (Abraham & Supriyati, 2022). The population used in this study consists of students at UPTD SMPN 3 Satu Atap Galis - Madura - East Java - Indonesia. This study utilizes purposive sampling technique, These researchers emphasize that in qualitative research, purposive sampling can assist in selecting participants who have valuable experiences or insights related to the research topic (Palinkas et al.,

HALAMAN OLAHRAGA NUSANTARA
JURNAL ILMU KEOLAHRAGAAN
Jendral A. Yani Street Lorong Gotong Royong 9/10 Ulu Palembang South Sumatera
email jurnal: jurnalhon@univpgri-palembang.ac.id
situs web: http://www.univpgri-palembang.ac.id

2015). The sample in this study consists of 12 students, a duration of the study was 6 weeks, with training sessions held 3 times a week on Mondays, Wednesdays, and Fridays. Pre-test data were collected 2 days before the treatment implementation, and post-test data were collected 2 days after the treatment implementation. Data collection in this study was conducted using a measurement test for the accuracy of badminton smashes, as established by PB PBSI (Wiratama & Karyono, 2017). The procedure for data collection is as follows: A) Equipment required: 1. Badminton court, 2. Net, 3. Racket, 4. Shuttlecock, 5. Measuring tape, 6. Notebook and writing tools for recording data. B) 3 assistants to record the results, assist with serving, and call the students. C) Test Implementation: The participant initially assumes a normal ready stance in the designated position while holding the racket. Upon hearing the commands "Ready" and "Go," the participant jumps and swings the racket upward, then performs a smash in response to 10 drilled shots from the feeder. D) Scoring : The recorded results are the scores achieved by the participant during the 10 smash accuracy attempts. If the shuttlecock goes out of bounds or does not clear the net, it scores zero.

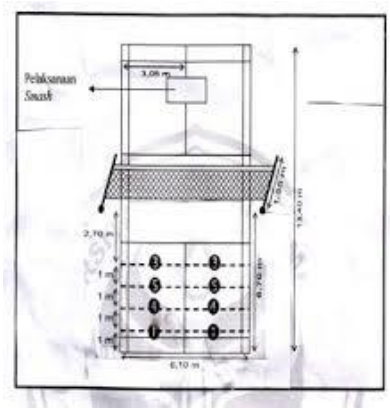


**Figure 1.** Instrument Test Research

The data analysis in this study is divided into two parts. First, prerequisite tests are conducted using normality and homogeneity tests. Second, a pired sample t-test is used to test the hypothesis, with the assistance of SPSS 25, to compare the pre-test and post-test scores.

HALAMAN OLAHRAGA NUSANTARA
JURNAL ILMU KEOLAHRAGAAN
Jendral A. Yani Street Lorong Gotong Royong 9/10 Ulu Palembang South Sumatera
email jurnal: jurnalhon@univpgri-palembang.ac.id
situs web: http://www.univpgri-palembang.ac.id

## RESULT AND DISCUSSION

The research results are as follows:

1. Descriptives Test

a) The pre-test results showed a maximum score of 30.00, a minimum score of 12.00, an average score of 18.75, and a standard deviation of 4.55.

b) The post-test results showed a maximum score of 30.00, a minimum score of 18.00, an average score of 23.08, and a standard deviation of 3.23.

**Tabel 1.** Data Descriptives Pre-Test & Post-Test

| | | Statistic |
|---|---|---|
| PRE | Mean | 18.75 |
| | Std. Deviation | 4.55 |
| | Minimum | 12.00 |
| | Maximum | 30.00 |
| | | Statistic |
| POST | Mean | 23.08 |
| | Std. Deviation | 2.23 |
| | Minimum | 18.00 |
| | Maximum | 30.00 |

2. Normality Test

**Tabel 2.** Tests of Normality

| | Kolmogorov-Smirnov[a] | | | Shapiro-Wilk | | |
|---|---|---|---|---|---|---|
| | Statistic | df | Sig. | Statistic | df | Sig. |
| PRE | .232 | 12 | .074 | .871 | 12 | .068 |
| POST | .215 | 12 | .133 | .924 | 12 | .324 |

a. Lilliefors Significance Correction

From the normality test results, it was found that p (sig) > 0.05, indicating that the variables are normally distributed. The pre-test p (sig) result was 0.068, which is greater than the coefficient value of 0.05, indicating that the pre-test variable data is normally distributed. Meanwhile, the post-test p (sig) result was 0.324, which is greater than the coefficient value of 0.05, indicating that the post-test variable data is normally distributed.

HALAMAN OLAHRAGA NUSANTARA
JURNAL ILMU KEOLAHRAGAAN
Jendral A. Yani Street Lorong Gotong Royong 9/10 Ulu Palembang South Sumatera
email jurnal: jurnalhon@univpgri-palembang.ac.id
situs web: http://www.univpgri-palembang.ac.id

3. Hypothesis Test.

Hypothesis testing was conducted using a t-test to compare the pre-test and post-test scores. The analysis was performed with the assistance of SPSS 25. The results from the t-test will determine if there is a statistically significant difference between the pre-test and post-test scores, thus validating or refuting the hypothesis of the study.

**Tabel 3.** Paired Samples Test

| | | Paired Differences | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | 95% Confidence Interval of the Difference | | | | |
| | | Mean | Std. Deviation | Std. Error Mean | Lower | Upper | t | df | Sig. (2-tailed) |
| Pair 1 | PRE - POST | -4.333 | 2.67423 | .77198 | -6.03246 | -2.63421 | -5.613 | 11 | .000 |

From the above output, it is known that the average difference between the pre-test and post-test scores is -4.33 with a standard deviation of 2.67. Furthermore, the paired sample t-test produced a p (sig) value of -5.613 and a sig (2-tailed) value of 0.00. Since the sig value is less than 5%, it can be concluded that there is a significant difference between the pre-test and post-test scores.

**Discussion**

This article highlights the importance of smash drilling practice in the development of specific skills in badminton. This study provides strong evidence that structured smash drilling practice can improve smash accuracy in badminton. Drilling practice allows players to focus on technical details that may be overlooked in regular training (Fahrurrozi et al., 2022). With systematic repetition, players can develop better muscle memory and improve consistency in their shots. Smash Drilling practice also helps players develop tactical awareness and adaptability in real match situations (Suardiana, 2021). Smash Drilling practice also aids in the mental development of players. Through repeated practice and direct feedback, players can boost their confidence in executing smashes, which in turn can enhance their performance in matches (Dwijaya et al., 2020). This study supports the view

HALAMAN OLAHRAGA NUSANTARA
JURNAL ILMU KOLAHRAGAAN
Jendral A. Yani Street Lorong Gotong Royong 9/10 Ulu Palembang South Sumatera
email jurnal: jurnalhon@univpgri-palembang.ac.id
situs web: http://www.univpgri-palembang.ac.id

that drilling practice is not only essential for beginners learning the basics but also for advanced players who need to perfect their techniques and maintain precision in their shots.

## CONCLUSION

Smash drilling exercises have proven effective in improving smash accuracy in badminton players. This article recommends integrating structured drilling exercises into badminton training programs to enhance players' performance in matches. With proper training, players can develop better skills, improve shot accuracy, and ultimately achieve better results in competitions. Through this research, we understand that repetition and focused practice on the technical and situational aspects of the game are key to achieving higher accuracy and effectiveness in smash shots.

## REFERENCES

Abraham, I., & Supriyati, Y. (2022). Desain Kuasi Eksperimen Dalam Pendidikan: Literatur Review. *Jurnal Ilmiah Mandala Education*, *8*(3), 2476–2482. https://doi.org/10.58258/jime.v8i3.3800

Ahmad Saleh, Irsan Kahar, & Nur Saqinah Galugu. (2022). Akurasi Pukulan Smash Pada Atlet Bulutangkis: Studi Pada Atlet Bulutangkis Kota Palopo. *Jurnal Kejaora (Kesehatan Jasmani Dan Olah Raga)*, *7*(2), 164–171. https://doi.org/10.36526/kejaora.v7i2.2207

Ariadi, H., & Iqbal, M. (2020). Pengembangan Potensi Olahraga Badminton Sebagai Upaya Mencetak Atlet Di Desa Mantuyan *Developing The Potential Of The Sport Of Badminton As An Effort To Produce Athletes In Desa Mantuyan*.

Arizzi, H., & Kustoro, A. (2022). Ketepatan Pukulan Smash Pada Siswa Putra Ekstrakurikuler Bulutangkis Di SMP Negeri 3 Lamongan. *Jurnal Multidisiplin Madani*, *2*(1), 371–382. https://doi.org/10.54259/mudima.v2i1.378

Bahri, S., & Permadi, A. G. (2019). Analisis Keterampilan Dasar Bulutangkis Pada Ukm Ikip Mataram Tahun 2019. *JISIP (Jurnal Ilmu Sosial Dan Pendidikan)*, *3*(2), 376–383. https://doi.org/10.58258/jisip.v3i2.799

Dwijaya, R. I., Pradipta, G. D., & Setiyawan, S. (2020). Pengaruh Metode Latihan Drill Terhadap Ketepatan Pukulan Backhand Clear Pada Siswa

HALAMAN OLAHRAGA NUSANTARA
JURNAL ILMU KEOLAHRAGAAN
Jendral A. Yani Street Lorong Gotong Royong 9/10 Ulu Palembang South Sumatera
email jurnal: jurnalhon@univpgri-palembang.ac.id
situs web: http://www.univpgri-palembang.ac.id

Ekstrakurikuler Bulutangkis SMK Negeri 3 Jepara. *Journal of Physical Activity and Sports (JPAS)*, *1*(1), 101–109. https://doi.org/10.53869/jpas.v1i1.21

Fahrurrozi, F., Sari, Y., & Shalma, S. (2022). Studi Literatur : Implementasi Metode Drill sebagai Peningkatan Hasil Belajar Matematika Siswa Sekolah Dasar. *Edukatif : Jurnal Ilmu Pendidikan*, *4*(3), 4325–4336. https://doi.org/10.31004/edukatif.v4i3.2800

Hidayat, T. (2022). Pengembangan Media Pembelajaran Interaktif Pada Teknik Bulu Tangkis Yang Berbasis Aplikasi Macromedia Flash. *JUPE: Jurnal Pendidikan Mandala*, *7*(3). https://ejournal.mandalanursa.org/index.php/JUPE/article/view/3859

Ilham Irawan, R., Kiram, Y., & Edmizal, E. (2020). Faktor-Faktor Yang Mempengaruhi Kemampuan Teknik Pukulan Dropshot Forehand Atlet Bulutangkis. *Jurnal Patriot*, *2*(4), 1047–1060.

Majid, R. F., Julianti, R. R., & Iqbal, R. (2021). Level of Students' Knowledge About the Class VIII Badminton Game at SMP Negeri 1 Telukjambe Barat, Karawang Regency. *Jurnal Ilmiah Wahana Pendidikan*, *7*(1), 391–402. https://doi.org/10.5281/zenodo.5589743

Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful Sampling for Qualitative Data Collection and Analysis in Mixed Method Implementation Research. *Administration and Policy in Mental Health and Mental Health Services Research*, *42*(5), 533–544. https://doi.org/10.1007/s10488-013-0528-y

Pane, B. S. (2015). Peranan Olahraga Dalam Meningkatkan Kesehatan. *Jurnal Pengabdian Kepada Masyarakat*, *21*(79), 1–4. https://jurnal.unimed.ac.id/2012/index.php/jpkm/article/view/4646

Prajakusuma, M., Kurniah dan Delrefi, N. D., & Kurniah, N. (2016). Penerapan Metode Latihan (Drill) Berbantuan Audio Visual Untuk. *Jurnal Ilmiah Potensia*, *1*(2), 67.

Prestasi, J. O. (2017). *Efek metode latihan drill terhadap ketepatan*. *13*, 60–67.

Purba, S. D., Tarigan, J. W., Sinaga, M., & Tarigan, V. (2021). Pelatihan Penggunaan Software SPSS Dalam Pengolahan Regressi Linear BergandaUntuk Mahasiswa Fakultas Ekonomi Universitas SimalungunDi Masa Pandemi Covid 19. *Jurnal Karya Abdi*, *5*(2), 202–208.

Rejeki, P. S., Irwadi, I., Munir, M., Kinandita, H., Putri, E. A. C., Mulyadi, S. Y., & Purwoto, S. P. (2020). Pemasyarakatan Dan Pelatihan Olahraga Adaptif Pada Anak Berkebutuhan Khusus. *Jurnal Layanan Masyarakat (Journal of Public Services)*, *4*(1), 134. https://doi.org/10.20473/jlm.v4i1.2020.134-140

HALAMAN OLAHRAGA NUSANTARA
JURNAL ILMU KOLAHRAGAAN
Jendral A. Yani Street Lorong Gotong Royong 9/10 Ulu Palembang South Sumatera
email jurnal: jurnalhon@univpgri-palembang.ac.id
situs web: http://www.univpgri-palembang.ac.id

Retnoningsasy, E. & M. J. (2020). Hubungan Antara Mental Toughness Dengan Kecemasan Olahraga Pada Atlet Badminton. *Character : Jurnal Penelitian Psikologi*, *7*(3), 8–15.

Suardiana, I. M. (2021). Metode Drill untuk Meningkatkan Hasil Belajar Matematika pada Siswa Kelas IV SD. *Journal of Education Action Research*, *5*(4), 542. https://doi.org/10.23887/jear.v5i4.39476

Subarkah, A., & Marani, I. N. (2020). Analisis Teknik Dasar Pukulan Dalam Permainan Bulutangkis. *Jurnal MensSana*, *5*(2), 106–114. https://doi.org/10.24036/menssana.050220.02

Syaiuddin, A., & Indardi, N. (2023). Pengaruh Metode Latihan Drill Smash terhadap Ketepatan Smash Atlet Bulutangkis Putra PB Ksatria Demak. *E-SPORT: Jurnal Pendidikan Jasmani, Kesehatan Dan Rekreasi*, *4*(1), 78–88. https://doi.org/10.31539/e-sport.v4i1.7998

Wardani, K., Widiyatmoko, F. A., & Huda, M. (2022). Pengaruh Metode Drill Dengan Sasaran Kardus Shuttlecock Dalam Meningkatkan Akurasi Smash Pemain Bulutangkis Putra. *Online) Journal of Physical Activity and Sports*, *3*(2), 1–4.

Wiratama, S. A., & Karyono, T. (2017). Efek Metode Latihan Drill Terhadap Ketepatan Smash Atlet Bulu Tangkis Berusia Muda Di Yogyakarta. *Jorpres (Jurnal Olahraga Prestasi)*, *13*(1), 60–67. https://doi.org/10.21831/jorpres.v13i1.12885