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The Impact of Thrown Ball Drill and Deep Drive Training on Backhand Hitting Ability of Field Tennis Players

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Abstract

Study purpose. Backhand shots really need to be mastered well by field tennis players. Mastery of quality backhand shot techniques will affect player motivation in the match. The purpose of this study was to determine the effect of thrown ball drill training on the results of backhand shots.

Materials and methods. The research method used is experimental. The treatment in this study was 16 training sessions. This research was conducted on 16 JPOK ULM tennis players. This study used total sampling technique. To collect backhand data, this study used the Hewitt Tennis Achievement Test instrument. This study used a t-test to analyze the data by looking at the increase in pre-test and post-test scores.

Results. The results of this study resulted in thrown ball drill training and deep drive training being able to improve the ability of JPOK ULM tennis players' backhand shots. this research obtained thrown ball drill training obtained t-count more than t-table 2.365 < 17.60. Deep drive training obtained t-count more than t-table 2,365 < 8.05.

Conclusion. Thrown ball drill and deep drive training methods can be applied to train tennis players' backhand shots. Thrown ball drill training has more effect on improving the backhand ability of JPOK ULM student tennis players.

Keywords: Thrown ball drill, Deep Drive, Court Tennis, Students
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Introduction

Backhand stroke is one of the basic techniques in the game of tennis that needs to be well developed (Dwijaya et al., 2020). The backhand can be a shot that can generate points in the game. Many players in tennis matches aim their shots towards the opponent's backhand side (Ramdani Khadavi, 2018). This is because many players think that the opponent's backhand side is a weak side that can be attacked. However, if the player can master the backhand side, the opponent will be mentally pressed because the player has a complete side of the shot to defend and attack (Brown, 2014). Of all the tennis shots, the backhand is the most difficult. Because this shot will do a lot of backhand shots and therefore can be a secret weapon (Ikfan Nur Ardhiansyah & Nurhidayat, 2021).

Backhand is stroke in tennis that can be used by tennis players in defence and attack. If the player masters the backhand stroke well, the result backhand shot makes of ball have a hard topsin rotation and can be used to get points (Jatra et al., 2023; King et al., 2012; Nainggolan & Akhmad, 2021). Players are required to hit a lot of backhand shots. This can be seen in the game of tennis, many opponents direct the ball towards the backhand side (Kembaren & Siregar, 2024). The backhand is also a shot that is often hit after the forehand (Brown, 2016). A player can also use a backhand to attack. If the player has a strong backhand, he will not hesitate to use it to attack.

Mastering the backhand stroke in the modern game is a foundation that every player (Farhan Zapar Sidik et al., 2023), because if this shot is developed it will produce a strong shot. Accurate contact between the ball and the racket will produce a powerful backhand shot so that a maximum shot can be produced. This precise contact will make the backhand ball produce an aggressive topspin ball. This aggressive ball spin is very important because it is needed to attack, this shot can be used for attack shots if the ball is directed towards the backhand side, is the second most frequently used shot to get points, and is the main shot that can be used to defend in the face of an opponent's attack.

Technical training is special training to improve each movement technique in a sport so that motor movements and neuromuscular abilities will be formed. Through good technical training, players can carry out technical evaluations to correct mistakes so that they can achieve perfect movements. A player's ability to master the perfection of basic technical movements in a sport will greatly influence the mastery of all the basic techniques learned.

Backhand training methods include thrown ball drill and deep drive drill (Alim, 2019). The thrown ball drill is a backhand drill that aims to develop a player's accuracy and groundstroke control. Training using this method can be applied to beginner players. This drill is performed with the player standing in the centre of the baseline and in a ready position. The coach stands near the net. The coach feeds the ball by throwing a bouncing ball in front of the player. The player hits using a controlled backhand shot so that the coach can catch the ball with his hand. The overage of method thrown ball drill is players will have more opportunities to make directed shots (controlling the strength of the blow and the direction of the blow to the intended target in this case the target is to return the ball back to the coach). With thrown ball drill training, players are trained to have the opportunity to make more frequent strokes so that players can have the opportunity to learn to improve the quality of mastering better backhand strokes. Deep drive training used to train technical skills by carrying out the exercise part by part in the hope of producing a deep shot. Deep drive training produces accuracy and deeper backhand shots. This exercise can be used players in the beginner and intermediate categories. This exercise is carried out with the feeder directing the ball at the tennis player. The tennis player hits the ball with a backhand towards the baseline (deep shot). After hitting with a backhand shot the player returns to the line and alternates with other players.

Missing ","

Both training methods require good coordination between the expected target and the backhand stroke performed. In doing backhand training requires a movement improvement approach. Movement that is in accordance with the stages will produce impactiveness and efficiency of stroke quality (Mega Widya Putri et al., 2020). In the early stages, players need to improve the stages of movement in backhand shots. There are five stages in hitting a backhand shot (Agus Rusdiana et al., 2022). The stages of the movement includes the preparation stage, the acceleration stage, the impact stage of the racket with the ball, and the follow-up stage, as well as the preparation stage. When performing a backhand stroke, good coordination is required between each stage performed. Coordinated movements are movements that combine more than one movement element without making tense movements, movements that are carried out in the correct sequence and can produce complex

movements smoothly without requiring a lot of energy (Rohadi et al., 2021). Good coordination movements are carried out by players by combining very complex biomotor movements (King et al., 2012; Suhairi et al., 2023; Syarif et al., 2023). Players can combine several stages of movement into certain movement patterns. Every basic technique in playing tennis has a coherent and systematic movement pattern, as does the backhand stroke. The movement pattern in making a backhand stroke must be done sequentially according to the sequence of stages. Tennis players need to master the stages of the backhand movement from initial preparation to final preparation after impact. If there are stages that are not carried out or skipped in carrying out the movement, then the resulting of the backhand shot are less than maximum (U. Nugroho & Febrianti, 2019). Therefore, coaches are expected to provide training so that players can master and carry out each phase of the backhand movement.

In making tennis shots, consistency and accuracy are needed. Consistency in hitting shots in tennis is very important to support the success of the game and also the ability to maintain constancy in hitting the ball (Firdaus et al., 2024). Consistency in the game of tennis means that the player has a steady and successful ability to hit the ball into the court in a row without errors (Amni & Putri, 2022). Accuracy and consistency can be obtained if the player can get the right timing. To have a quality backhand shot, players need to master the right feeling and timing when to make the shot (Reid et al., 2013).

Based on results of observations, it is found basic backhand technique in the game of tennis court has many obstacles such as improper impact on the ball with the racket, improper shot timming, low level of accuracy, inconsistent and unstable shots so that the success rate is low, as well as the many and varied directions of the ball but still low and the limited ability of players to anticipate the arrival of the ball.

The results of the backhand shots of JPOK ULM student tennis players in performing the backhand technique are still unsatisfactory. JPOK ULM student tennis players in hitting backhand shots have a low level of accuracy. From 10 attempts in practice, many backhand shots resulted in failed ball returns that did not cross the net, the ball goes out of play and the level of accuracy in aiming it at the target is low. Another weakness encountered was the inconsistent and unstable results of backhand shots. In practice sessions, players have less consistent confidence in backhand strokes. Players sometimes have the quality of punches that are strong and directed, but in other cases of attempted punches, the results of the punches are weak and easily reached by the opponent.

If you observe the process executing a backhand shot, there are players who carry out series of movement that still not perfect, especially in anticipating the varied direction of the ball. The imperfect movement phase occurs in the lack of precise footwork when going to hit the shot. This can result in anticipation of the direction the ball will come from. Apart from these problems, the quality swing of the racket is backswing, impact and follow through, there are several mistakes made by players. Racket swings that do not match the timing of contact with the ball and racket can result in the quality of the backhand being weak. Players who have this deficiency make shots less and tend to play save by return the ball as it comes in. This problem is a concern for the coach and it must be solved because if it is not repaired, the quality and abilities of JPOK ULM players will not be good.

The author's efforts are given to JPOK ULM tennis players in solving backhand hitting problems so that it is hoped that improvements in skills will be obtained, namely through providing a training program using the thrown ball drill and deep drive methods. Based on the author's assumptions, training with these two methods can be carried out on JPOK ULM tennis players. When doing training, the group of players who were given thrown ball drill training had the opportunity to get more shot drills. This type of training also aims to improve the control and accuracy of players shots. Through the drill type of training, it can

provide opportunities for players to be able to trainning continuously so that they can create habits of motion and get motion automation.

The deep drive training method can be used to train tennis players' backhand strokes. The group of players who received the deep drive training method received treatment to be able to practice backhand strokes to produce deeper shots. This exercise is done alternately. It is hoped that this stroke will produce a deeper stroke so that the trainer's role can carry out and correct each stage of the movement to produce a deeper stroke so that a higher quality backhand stroke is obtained. With this alternating pattern, players can also get better footwork practice. The hypotheses in this research can be drawn, 1) thrown ball drill training has significant influence on the backhand hitting ability of JPOK ULM player, 2) deep drive has significant influence on the backhand hitting ability of JPOK ULM tennis players.

Materials and methods

Study participant.

The sampling technique in this research is a total sampling technique. Total sampling refers to taking samples with the same number as the population (Siti Fadjarajani, 2020). The sample in the study consisted of 16 players. The location where this research was carried out was in the JPOK ULM Banjarbaru campus field. The field used in this research is a hard field type made from cement using the flexy method.

Study organization.

The research method uses a one-group pretest-posttest design. This design is in accordance with the opinion of (Sudjana, 2014) performed with how to give a pretest to sample students to find out the conditions beginning. Next, the samples are grouped according to the provisions so that a homogeneous group is obtained. This research was carried out through experiments with 16 meetings. meeting 1 is used to obtain initial data, meetings 2 to 15 are used to provide treatment, and meeting 16 is used to obtain final data after being given treatment. The pre-test and post-test data collection used the Hewitt tennis achievement test instrument which was modified according to the need to collect backhand shot data. The test instrument was written by James S. Bosco and Wiliam F. Gustafson (Jack E. Hewitt, 2013). This instrument has a reliability level of 0.75 and a validity level of 0.63.

Statistical analysis.

The steps taken by researchers after giving treatment and obtaining initial data and final data then tabulate the data. Hypothesis testing was carried out by testing the normality of the data and testing the homogeneity of the data. This test uses Kolmogorov Smirnov and Shapiro-Wilk. The researcher then conducted a t-test. The analysis of experimental results is based on matching subjects (M-S) using t-test on correlated samples. Translated with DeepL.com (free version) (Fauzan, 2022; Hadi, 2015). This research uses the Statistical Product and Service Solutions (SPSS) computerized system (SPSS version 25).

Prosedures

In carrying out research, several equipment is needed to support the treatment of samples and is needed to collect test data. Equipment is a tool used to support the implementation of research so that it is hoped that the required data can be obtained. (Nasution, 2016). Equipment used in this research included rackets, tennis balls, measuring instruments, rope, number paper, duct tape, player attendance lists, cameras, tennis courts, and books. In experimental research, the pattern used is Match Subject Design (M-S) by matching between subject and subject. Researchers created 2 groups by dividing the grouping into an experimental group and a control group. This step is called Ordinal Pairing. Ordinal

pairing is a way of creating pairs of research samples by grouping samples using a ranking system from initial test results using the AB-BA formula. This method was used to divide them into two groups that were balanced and had the same level of ability so that they were not influenced by the researcher's subjectivity. In this study, the experimental group was given thrown ball drill training and the control group was given deep drive training.
The steps taken in this research include:

1) At the first meeting, researchers took data through an initial test of backhand hitting ability. The test was carried out using the Hewitt Tennis Achievement Test instrument. The data obtained will then be used to carry out ordinal pairing. The procedure used to collect initial data involves a sample of 13 backhand strokes, with 3 trial strokes and 10 strokes to be assessed. The sample will get full marks if the ball from a backhand hit passes over the net between the top rope (with a rope height of 2.13 m) and bounces into the opponent's court. If the ball passes over the rope and the ball bounces into the opponent's court, the calculated score will be divided by 2. Meanwhile, if the shot does not cross the net or go out of court, the sample will receive a score of 0. From the results of the initial test data, the researcher then carried out ordinal pairing by ranking and dividing the experimental group and the control group. Exercise is carried out 3 times a week for 6 weeks. The amount of training given is in accordance with the opinion of (M.L Fox, 2013) the treatment in training is carried out 8-16 times.
2) The next step after the sample received treatment was that at the 16th meeting the researcher took the final test data. The final test was carried out using the same instrument when the initial test data was collected. From the results of this final test, researchers can analyze the data to see changes in the data after the sample is given treatment. Through data analysis, researchers will also be able to draw conclusions to answer the hypotheses that have been presented (Manullang & Ngatimin, 2023).

Results

Hypothesis testing was carried out using data normality tests and homogeneity tests using Kolmogorov Smirnov and Shapiro-Wilk. The results of research data analysis are described and presented in the table below.

Table 1. Data Description Table

Group	Test	*X*	Sd
Group A Thrown ball drill	Minimum	5,0	
	Maximum	27,0	
	Range	22,0	
	Initial Test	14,77	7,22
	Final Test	18,50	7,36
	Improvement	3,73	
Group B (Deep drive)	Minimum	6,0	
	Maximum	24,0	
	Range	18,0	
	Initial Test	14,81	6,26
	Final Test	16,38	6,35
	Improvement	1,57	

From table 1 Group A obtained a minimum score of 5.0, a maximum score of 27.0, a range score of 22.0, a mean initial test score of 14.77 the final test mean score was 18.50, an increase in the mean score was 3.73. Group B obtained a minimum score of 6.0, a maximum

score of 24.0, a range score of 18.0, a mean initial test score of 14.81 the final test mean score was 16.38, an increase in the mean score was 1.57.

Normality Test of Preliminary and Final Test Data

The data normality test in this study was used to determine whether the pretest and posttest data were normally distributed or not. The normality test uses the Kolmogorov-Smirnov and Shapiro Wilk tests with normal criteria if the significant value is> 0.05. The results of the research data analysis are described and presented in the table below.

Table 2. Results of Normality Test Data

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk			
	Statistic	df	Sig.	Statistic	df	Sig.	Information
Pre Test_Group A	0,148	8	.200*	0,973	8	0,924	Normal
Post Test_Group A	0,107	8	.200*	0,986	8	0,986	Normal
Pre Test_Group B	0,144	8	.200*	0,968	8	0,879	Normal
Post Test_Group B	0,127	8	.200*	0,967	8	0,877	Normal

From the table above, the pretest group and posttest group obtained a significant value of >0.05. It can be concluded that this research data has a normal distribution.

Homogeneity Test Results of Preliminary and Final Test Data

The next step is that the researcher carries out a homogeneity test to determine whether the sample that has been selected has a homogeneous variant or not. Testing is carried out by looking at the average value of the overall test results with the Levene test. If the significant value is > 0.05, it can be concluded that the data variants are homogeneous. The results of research data analysis are described and presented in the table below.

Table 3. Results of Homogeneity Testing

Test of Homogeneity of Variance

	Levene Statistic	df1	df2	Sig.	Information
Based on Mean	0,117	1	14	0,738	Homogen
Based on Median	0,114	1	14	0,741	Homogen
Based on Median and with adjusted df	0,114	1	13,204	0,741	Homogen
Based on trimmed mean	0,117	1	14	0,738	Homogen

From the table above, based on the average value of the overall test results, it has a significant value of 0.738 > 0.05, so this research data has a homogeneous variant.

Hypothesis Test

The next step is to carry out a t test. The hypotheses this study are 1) Thrown ball drill exercise has significant impact on the backhand skills. 2) Deep drive training has significant impact on the backhand skills. The results of research data analysis are described and presented in the table below

$$t = \frac{|\ MB\ |}{\sqrt{\frac{\sum b^2}{N(N-1)}}}$$

Ho is accepted if t < t(1-a)(n-1)

Table 4. Test of Differences in Pre Test and Post Test Results of Experimental Group

No	Res Code	X_{e1}	X_{e2}	B	b	b^2
1	T-15	27,0	31,0	4,0	0,25	0,06
2	T-09	20,0	24,0	4,0	0,25	0,06
3	T-04	19,0	23,0	4,0	0,25	0,06
4	T-03	16,5	19,0	2,5	-1,25	1,56
5	T-01	12,0	16,5	4,5	0,75	0,56
6	T-10	10,5	14,5	4,0	0,25	0,06
7	T-05	8,0	12,0	4,0	0,25	0,06
8	T-13	5,0	8,0	3,0	-0,75	0,56
Amount		118	148	30	0,00	3,00
Average		14,75	18,50	3,75		

|MB| = 30 : 8 = 3,75

$$t = \frac{3,75}{\sqrt{\frac{\{\ 3,00\ \}}{8\quad 8\quad 1}}} = 16,20$$

At a = 5% with db = 8 - 1 = 7 obtained t(0.95)(7) = 2,36

Because t is in the Ho rejection area, it can be concluded that there is a difference in the results of the pre-test and post-test of the experimental group. The researcher then tested the difference in the results of the pre-test and post-test of the control group. The results of the difference test can be observed in the table 5.

Table 5. Test of Differences in Pre Test and Post Test Results of Control Group

No	Res Code	X_{k1}	X_{k2}	B	b	b^2
1	T-11	24,0	26,0	2,0	0,44	0,19
2	T-07	20,5	22,5	2,0	0,44	0,19
3	T-08	19,0	20,0	1,0	-0,56	0,32
4	T-02	16,5	17,5	1,0	-0,56	0,32
5	T-14	12,5	15,0	2,5	0,94	0,88
6	T-12	12,0	13,0	1,0	-0,56	0,32
7	T-16	8,0	9,0	1,0	-0,56	0,32
8	T-06	6,0	8,0	2,0	0,44	0,19
Amount		119	131	13	0,00	2,72
Average		14,81	16,38	1,56		

|MB| = 13 : 8 = 1,56

$$t = \frac{1{,}56}{\sqrt{\left[\frac{2{,}72}{8}\right]\left[\frac{8}{1}\right]}} = 7{,}09$$

At a = 5% with db = 8 - 1 = 7 obtained t(0.95)(7) = 2,36

Because t is in the Ho rejection area, it can be concluded that there is a difference in the results pre test and post test of the control group. The next step is for researchers to test the hypothesis of difference between post test results of experimental group and the control group. The results of the difference test can be observed in table 6.

Table 6. Test Results of Differences in Post Test Results of Experimental Group and Control Group

No	Res Code			X_{k2}	X_{e2}	B	b	b^2
1	T-11	-	T-15	26,0	31,0	5,0	2,88	8,27
2	T-07	-	T-09	22,5	24,0	1,5	-0,63	0,39
3	T-08	-	T-04	20,0	23,0	3,0	0,88	0,77
4	T-02	-	T-03	17,5	19,0	1,5	-0,63	0,39
5	T-14	-	T-01	15,0	16,5	1,5	-0,63	0,39
6	T-12	-	T-10	13,0	14,5	1,5	-0,63	0,39
7	T-16	-	T-05	9,0	12,0	3,0	0,88	0,77
8	T-06	-	T-13	8,0	8,0	0,0	-2,13	4,52
Amount				131	148	17	0,00	15,88
Average				16,38	18,50	2,13		

|MB| = 17 : 8 = 2,13

$$t = \frac{2{,}13}{\sqrt{\frac{15{,}88}{8\ \ 8\ \ 1}}} = 3{,}99$$

At a = 5% with db = 8 - 1 = 7 obtained t(0.95)(7) = 2,36

Because t is in the Ho rejection area, it can be concluded that there is a difference in the post-test results of the experimental group and the control group. Based on data analysis, the results of group A and group B training can be obtained in table 7.

Table 7. Hypothesis Testing of Group A and B Exercise Results

Paired Samples Test

	Paired Differences			t	df	Sig. (2-tailed)	Information
	Mean	Std. Deviation	Std. Error Mean				
Pre test experiment - Post tes experiment	-3,7500	0,6547	0,2315	-16,202	7	0,000	Ho was rejected. Ha accepted
Pre test control - Post tes control	-1,5625	0,6232	0,2203	-7,091	7	0,000	Ho was rejected. Ha accepted

The hypothesis conclusion is that the hypothesis is rejected (Ho) if the sig (2-tailed) value is >0.05, while the hypothesis is accepted (Ha) if the sig (2-tailed) value is <0.05. seen from the table above, it can be explained that group A obtained a t-value of -16,202 with a significant value (2-tailed) of 0.000 <0.05, so it can be stated that group A has a significant influence. Meanwhile, group B obtained a t-value of -7.091 with a significant value (2-tailed) 0.000 <0.05, so it can be concluded that group B has a significant influence. From these two groups, it can be concluded that these two groups influence the results of backhand shot ability.

The next test is the Independent Sample T-Test to draw conclusions whether or not there is a significant difference between the training methods of Group A and Group B. This test is carried out by testing the difference in data between the two groups, with the criterion being that the value is significant (2-tailed) > 0.05 then there is no difference. The results of research data analysis are described and presented in the table below

Table 8. Independent sample T-Test

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means			Information
	F	Sig.	Sig. (2-tailed)	Mean Difference	Std. Error Difference	
Equal variances assumed	0,117	0,738	0,546	2,125	3,4379	No difference

Equal variances not assumed	0,547	2,125	3,4379

From the table above, based on the results the significant value is 0.546 > 0.05. So it can be concluded that there is no significant difference between group A and group B exercises.

Table 9 Difference in Average Post Test Results

	N	Mean	Std. Deviation	Std. Error Mean
Post Test Experiment	8	18,5	7,363	2,6032
Post Test Control	8	16,38	6,3513	2,2455

The researcher presented the average data from group A's posttest results with an average value of 18.50, while the group had an average value of 16.38, so a difference value of 2.12 was obtained. So it can be concluded that group A thrown ball drill had a better effect than group B deep drive.

Discussion

From a series of data analysis tests it was concluded that, it is obtained that thrown ball drill exercises have an influence on the ability of backhand tennis players JPOK ULM obtained t-count great than t-table 16.20 > 2.36. Deep drive training has influence on backhand hitting tennis players, obtained t-count great than t-table 7.09 > 2.36. Thrown ball drill and deep drive training are tennis backhand skills exercises that can be used to achieve technical training goals so as to improve training abilities in accordance with research results (Alim, 2019) that thrown ball drill excercise has influence on improving backhand. The throw ball drill is a backhand exercise that aims to develop a player's groundstroke accuracy and control. Can be applied to novice or novice players. The advantage of the thrown ball drill training method is that players will have more opportunities to make targeted blows (controlling the strength of the blow and the direction of the blow towards the intended target, in this case the target is to return the ball towards the coach). Thrown ball drill is a training method aimed at developing player accuracy and control. Accuracy and control training is very important for players to master. In general, the groundstroke strokes that we do in tennis really need accuracy, this is in accordance with the research carried out (Fathoni Hidayat, 2019) that accuracy training in groundstroke shots to train the accuracy of players in directing shots according to predetermined targets. Accuracy training can be applied to beginner or beginner players. Accuracy training cannot be obtained quickly, but must be formed through stages of training from as early as possible (Haryanto & Sari, 2021).

Thrown ball drill is an exercise that focuses on one material and focuses on repetition so that accuracy is obtained on directing the shot and control of the ball. Continuous movement repetition exercises can give a memory of motion in the player so that automation of movement will be obtained. This is in accordance with the theory to obtain good movements, the stages that need to be passed by the player are being able to perform cognitive abilities or planned formations, the ability to associate movements, and obtain movement automation (Fajar Sriwahyuniati, 2017; Mustafa & Sugiharto, 2020). If the player obtains good accuracy and control through movement automation, the player can easily anticipate various variations of the ball that comes and can direct the ball to the opponent's area according to what the player wants. The increase in the results of backhand shots through thrown ball drill training obtained from that the provision of an appropriate training programme will be able to have an

impact on increasing the expected ability (Budiwanto, 2012; P. Nugroho, 2015; Sidik et al., 2023).

Deep drive training used to train technical skills by carrying out the exercise part by part in the hope of producing a deep shot. By part to produce a depth of stroke (deep) and done alternately. Deep drive training produces accuracy and a deeper backhand deeper. This exercise can be used by players in the beginner and intermediate categories. Through this exercise the player is required to produce deeper shots towards the opponent. This exercise requires the player to truly master each phase of the movement to produce deeper shots to the opponent's field. deep into the opponent's field. If on performing when carrying out the steps of the backhand movement, an error or inaccuracy in carrying out the steps of the movement occurs, the results of the backhand shot will rise higher and in the game, conditions like this make it possible to get a counterattack from the opponent. Practice deep drive training has an influence in improving the results of backhand shots, but to produce more consistent shots, more practice is needed. to produce more consistent shots it is necessary to do more and routine training. This condition occurs because deep drive training is included in the category of more difficult exercises, so that beginner tennis players will need more time to practice. so that beginner tennis players will need more training time than intermediate players. compared to intermediate category players. Beginner category players if they want to get excelent backhand shots then the player must master each phase of the backhand shot movement. The stages of movement that every tennis player needs to learn when hitting the ball on the backhand according to (Brown, 2016) phase include preparation, execution, follow-up movements.

The goal of technical training is to achieve good motor skills (Siregar & Faridah, 2021). Every exercise performed requires good and serious effort (Amico & Schaefer, 2022; David Schaefer, 2020) so that athletes can improve their quality. In every training process, athletes accompanied by a coach will find movements that need to be improved and improved and will try to avoid mistakes. Good training can form cognitive abilities in learning motion. Through routine training, athletes will gain motion automation (G Furley, 2016). To obtain the quality of motion automation, athletes must learn each stage of the previous exercise by repeating it continuously. When the player has achieved movement automation in mastering movement techniques, the body's stimulus will respond to the part of the body that is making the movement so that the movement will be more precise, fast, thorough, careful and every movement made will not be disturbed by the surrounding environment.

Conclusion

Researchers have carried out data analysis. Conclusions were obtained: 1) there was impact of training using the thrown ball drill method and using the deep drive training method in improving the backhand strokes of JPOK ULM tennis players, 2) JPOK ULM tennis players who were given a training program using the thrown ball drill method achieved higher improvements. The advice to coaches from the results of this research is to be able to use thrown ball drill and deep drive training methods in an effort to train backhand hitting skills.

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