COMPETITOR:
JURNAL PENDIDIKAN KEPELATIHAN OLAHRAGA
e-ISSN: 2657-0734 & p-ISSN: 2085-5389 ‖ Volume 17, Number 2, 2025 ‖ P.857-868

The Influence of Leg Muscle Explosive Power, Eye Hand Coordination and Motivation on Lay Up Shoot Ability in Basketball Games on Extracurricular Students of SMAN 10 Makassar

Muh. Nur Ilham Akhmad[1-E*], Fahrizal[2B-D], Muhammad Ishak[3B-D], Juhanis[4B-D], Muh. Adnan Hudain[5B-D]

[1,2,3,4,5] Universitas Negeri Makassar, South Sulawesi, Indonesia

Ilhamakhmad61@gmail.com[1*], fahrizal@unm.ac.id[2], m.ishak@unm.ac.id[3], juhanis@unm.ac.id[4], muh.adnan.hudain@unm.ac.id[5]

ABSTRACT

This study aims to determine: 1) The effect of leg muscle explosive power on lay up shoot ability in basketball games on students of SMAN 10 Makassar; 2) The effect of hand-eye coordination on lay up shoot ability in basketball games on students of SMAN 10 Makassar; and 3) The effect of leg muscle explosive power, hand-eye coordination and motivation on lay up shoot ability in basketball games on students of SMAN 10 Makassar. Descriptive regression is the research method used in this thesis. A total of 20 athletes were selected from the entire student population at SMAN 10 Makassar for this study. With the help of SPSS software version 23.00, the research instruments used were regression analysis, data normality analysis, and descriptive analysis. The findings of the study indicate that: 1) Leg muscle explosive power has a significant effect on lay up shoot ability in basketball games on students of SMAN 10 Makassar with a correlation value of 0.599; 2) Hand-eye coordination has a significant influence on the ability to make lay up shots in basketball games for students of SMAN 10 Makassar with a correlation value of 0.600; and 3) Leg muscle explosive power and hand-eye coordination have a significant influence on the ability to make lay up shots in basketball games for students of SMAN 10 Makassar with a correlation value of 0.697.

ARTICLE HISTORY
Received: 2025/05/19
Accepted: 2025/05/28
Published: 2025/06/15

KEYWORDS
Leg Muscle;
Explosive Power;
Hand-Eye Coordination;
Lay Up Shoot;
Basketball.

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 : Akhmad, Muh. Nur Ilham; Fahrizal, F.; Ishak, Muhammad; Juhanis, J.; Hudain, Muh. Adnan. (2025). The Influence of Leg Muscle Explosive Power, Eye Hand Coordination and Motivation on Lay Up Shoot Ability in Basketball Games on Extracurricular Students of SMAN 10 Makassar. **Competitor: Jurnal Pendidikan Kepelatihan Olahraga**. 17 (2), p.857-868

INTRODUCTION

Globally, basketball is one of the most-watched sports events of all time (Rahadian & Sunarno, 2021). Due to its entertaining, informative, competitive, and healthy nature, this sport is loved by all ages (Pratama et al., 2022). Each basketball team, both male and female, has five (5) players (Kurniawan & Argantos, 2019). Satria Muda (SM), Garuda Bandung, Pelita Jaya, Aspac, Bima Sakti, and many more are just a few examples of the many basketball teams that are thriving in Indonesia, proving that the country's population is very skilled in this sport (Prasetyo & Hidayat, 2020). Many junior and senior high school children in the area participate in basketball programs, either through after-school programs or local organisations (Syahruddin et al., 2019).

This work is licensed under a *Creative Commons Attribution 4.0 International License*
Copyright © 2018 by **Author**. Published by **Universitas Negeri Makassar**

Muh. Nur Ilham Akhmad[1-E*], Fahrizal[2B-D], Muhammad Ishak[3B-D], Juhanis[4B-D], Muh. Adnan Hudain[5B-D]
Ilhamakhmad61@gmail.com[1*]

In addition to the National Science and Sports Olympiad (O2SN), every official event at the national and regional levels also holds basketball matches (Irwansyah & Juliantine, 2020). These matches include the Regional Student Sports Week (POPDA), the National Student Sports Week (POPNAS), and the National Sports Week (PON) (Nugroho & Gumantan, 2021).

The key to success in basketball is technique (Haryanto et al., 2021). If athletes master the basic techniques, their chances of winning will increase (Kusumawati & Hartoto, 2019). A player's mastery of the basic skills needed to play the game will determine how well they can perform these movements (Firmansyah & Syarifuddin, 2018). The following are some of the most basic basketball skills: passing, receiving, dribbling, shooting, running, stopping, controlling the body, turning, and defending (Widiastuti & Suherman, 2020). To be proficient in all basic techniques, an athlete must be in prime physical condition and train extensively (Hamdani, 2023). Strength, mobility, agility, stamina, explosive power, and coordination are basic components of physical fitness (Suherman & Rahayu, 2019).

In basketball, there are several ways to shoot the ball (Fadli & Anshor, 2022). The following are the seven most popular methods: (1) one-handed set shoot; (2) free throw; (3) jump shoot; (4) three-point shoot; (5) hook shoot; (6) lay up shot; and (7) runners (Asnaldi & Kibadra, 2020). In basketball, one of the most common and basic shooting strategies is the lay-up (Syafruddin & Sukoco, 2022). Prime strength, speed, agility, coordination, and explosive power of the leg muscles are some aspects of physical condition that a coach must know to be able to perform a lay-up shot. Simply put, a layup shot will be easier to do if you have the physical qualities mentioned above. A layup shot requires excellent physical condition, including explosive leg strength for maximum vertical jump, and excellent hand-eye coordination for optimal success.

Therefore, a basketball player must be proficient in performing layup shooting, as mentioned earlier. The ability to jump high is a prerequisite for developing solid layup shooting skills. Not surprisingly, a high jump is only possible with very fast leg muscles and excellent hand-eye coordination. A high jump, combined with excellent hand-eye coordination and explosive leg strength, allows an athlete to not only appear to be standing parallel to the basket and be more visible, but also to easily evade the opponent's hands and put the ball in the basket.

This study will be based on the results of the researcher's observations of several schools in Makassar. After careful consideration, the researcher decided that SMA Negeri 10 Makassar is the best school to be the subject of this study. This is because the basketball extracurricular program at SMAN 10 Makassar is in great demand. Compared to other extracurricular activities, basketball has a much larger number of male and female students interested. High school students at SMA Negeri 10 Makassar who participate in basketball as an extracurricular activity still have a long way to go before they can be called fully professional players, according to the results of the researcher's research. This is especially true in terms of perfecting the layup shot method. Misuse of the lay-up, an easy technique for scoring points, is seen, among other things, when the ball misses the ring. This occurs due to a lack of explosive power in the leg muscles, so

Muh. Nur Ilham Akhmad[1-E*], Fahrizal[2B-D], Muhammad Ishak[3B-D], Juhanis[4B-D], Muh. Adnan Hudain[5B-D]
Ilhamakhmad61@gmail.com[1*]

that the jump made when doing the lay-up is less than ideal, as well as poor hand-eye coordination, so that the ball cannot enter the ring.

METHODS

The research methodology used in this study is known as correlational research. Correlational research refers to research that tests the relationship between variables and existing hypotheses (Abdullah, 2015). The correlation coefficient is a statistical tool to determine the extent to which changes in one variable correlate with changes in another variable or variables. The study was conducted in semester 2 (Even) of 2024/2025 at the SMAN 10 Makassar Basketball Court. The instrumental test used an instrument from Abdul Narlan D. T. in 2020 for vertical jump, Eye Hand Coordination Test from Marjohan in Rafel in 2011, Motivation Test from Sugiyono in 2015, and Lay Up Shoot Ability Test from Dr. Saichudin, M.S. in 2019. Data Analysis Techniques include Descriptive Analysis, Data Normality Distribution, and Correlation Analysis Results.

RESULTS AND DISCUSSION

Result

The location of this research is in the environment of SMAN 10 Makassar. A total of 20 students of SMAN 10 Makassar became participants in the research. Lay-up shooting ability was measured in this study by asking participants to complete a test based on their performance in a real basketball game. In addition to assessing lay-up shooting ability in a basketball game, SMAN 10 Makassar students were also tested for explosive strength in the legs and eye-hand coordination. The following are the results of the Leg Muscle Explosive Power and Eye-Hand Coordination tests:

Table 1.
Results of Descriptive Analysis

Variabel	N	Range	Minimum	Maximum	Sum	Mean	Std. Deviation	Variance
Vertical Jump Test	20	38.00	31.00	69.00	943.00	47.1500	8.72549	76.134
Hand-Eye Coordination Test	20	8.00	11.00	19.00	294.00	14.7000	2.31926	5.379
Motivation Test	20	6.00	13.00	17.00	195.00	13.7000	2.4216	5.219
Lay Up Shoot Ability Test	20	7.00	2.00	9.00	117.00	5.8500	1.78517	3.187
Valid N (listwise)	20							

Based on the Descriptive Analysis Results of the Vertical Jump Test, the minimum score was 31.00 and the maximum score was 91.00, the Eye Hand Coordination Test obtained a minimum score of 11.00 and a maximum score of 19.00, the Motivation Test obtained a minimum score of 13.00 and a maximum score of 17.00, and the Lay Up Shoot Ability Test obtained a minimum score of 2.00 and a maximum score of 9.00 with a total sample of 20 students of SMAN 10 Makassar.

The following shows the total number of players in each evaluation category:

Muh. Nur Ilham Akhmad[1-E*], Fahrizal[2B-D], Muhammad Ishak[3B-D], Juhanis[4B-D], Muh. Adnan Hudain[5B-D]
Ilhamakhmad61@gmail.com[1*]

Table 2.
Analysis of Leg Muscle Explosive Power Test

Category	Number of Students	Percentage
Excellent	0	0
Very Good	2	10%
Above Average	3	15%
Average	13	65%
Below Average	2	10%
Poor	0	0
Very Poor	0	0
Amount	**20**	**100%**

Based on the Results of the Analysis of the Leg Muscle Explosive Power Test, it is known that the Excellent Category students were 0 (0%), the Very Good Category were 2 (10%), the Above Average Category were 3 (15%), the Average Category were 13 (65%), the Below Average Category were 2 (10%), the Poor Category were 0 (0%), and the Very Poor Category were 0 (0%).

Table 3.
Analysis of Motivation Test

Category	Number of Students	Percentage
Very high	0	0%
Tall	10	50%
Currently	10	50%
Low	0	0%
Very low	0	0%
Amount	**20**	**100%**

Based on the results of the Motivation Analysis, the Very High Category was 0 (0%), the High Category was 10 (50%), the Medium Category was 10 (50%), the Low Category was 0 (0%), and the Very Low Category was 0 (0%).

Table 4.
Analysis of Hand-Eye Coordination Test

Category	Number of Students	Percentage
Baik	2	10%
Cukup	10	50%
Kurang	6	30%
KurangSekali	2	10%
Amount	**20**	**100%**

Based on the results of the eye-hand coordination test analysis, the Good category was 2 (10%), the Sufficient category was 10 (50%), the Less category was 6 (30%), and the Very Less category was 2 (10%).

Data Normality Distribution Test

It is standard practice to check the normality of data before conducting correlational analysis. To find out whether the data follows a normal distribution, statisticians apply the data normality test (Sarwono, 2012: 96). Here's how to check whether the results of the concentration test are normal:

Muh. Nur Ilham Akhmad[1-E*], Fahrizal[2B-D], Muhammad Ishak[3B-D], Juhanis[4B-D], Muh. Adnan Hudain[5B-D]
Ilhamakhmad61@gmail.com[1*]

Table 5.
Results of Normality Test

Group	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Muscle Explosive Power Test	.161	20	.184	.951	20	.378
Eye-Hand Coordination Test	.139	20	.200*	.959	20	.518
Motivation Test	.151	20	.174	.961	20	.478
Lay Up Shoot Test	.190	20	.056	.940	20	.235

Based on the results of the data normality test shown in the table above, the following are the results of the Shapiro-Wilk test:

a. With a statistical value of 0.951 and a probability level value of 0.378 (P>0.05), the data on muscle explosive power can be said to follow or be normally distributed.
b. It can be concluded that the hand-eye coordination data follows or is normally distributed because the statistical value is 0.959 and the probability level value is 0.518 (P>0.05).
c. It can be concluded that the Motivation data follows a normal distribution or is normally distributed, because the statistical value is 0.961 and the probability level value is 0.478 (P>0.05).
d. The layup shot data follows a normal distribution, because the statistical value is 0.940 and the probability level value is 0.235 (P>0.05).

Correlation Analysis Test

To understand the relationship between leg muscle explosive power, hand-eye coordination, and layup shot, the data were first classified into evaluation categories. Then, SPSS software was used to calculate the correlation coefficient. The following are the findings of the analysis:

Table 6.
Results of the correlation analysis of leg muscle explosive power with layup shoot ability

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.599	.029	.039	1.750	.089	1.765	1	18	.000

There is a significant relationship between the variables of leg muscle explosive power, layup shot ability, and motivation, as shown by the results of the correlation analysis, which shows a significance level of 0.000 < 0.005. This relationship is further supported by the R value of 0.599.

Table 7.
Results of the correlation analysis of eye-hand coordination with layup shoot ability

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.600[a]	.010	-.045	1.825	.010	.183	1	18	.000

Muh. Nur Ilham Akhmad[1-E*], Fahrizal[2B-D], Muhammad Ishak[3B-D], Juhanis[4B-D], Muh. Adnan Hudain[5B-D]
Ilhamakhmad61@gmail.com[1*]

Based on the results of the correlation analysis, the significance of 0.000 <0.005 means significant, with an R value of 0.600, the relationship is significant, meaning that there is a significant relationship between the eye-hand coordination variable and the ability to lay up a shot.

Table 8.
Results of the correlation analysis of Motivation with the ability to lay up a shoot

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.600[a]	.010	-.045	1.825	.010	.183	1	18	.000

Based on the results of the correlation analysis, the significance of 0.000 <0.005 means significant, with an R value of 0.600, the relationship is significant, meaning that there is a significant relationship between the Motivation variable and the ability to lay up a shot.

Table 9.
Results of the correlation analysis of the joint relationship between variables x and y

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.697[a]	.113	.008	1.778	.113	1.080	2	17	.000

Based on the results of the correlation analysis, the significance of 0.000 < 0.005 means significant, with an R value of 0.697, the relationship is significant, meaning that the relationship between the variables of eye-hand coordination, eye-hand coordination and motivation towards lay-up shoot ability has a significant relationship.

Discussion

There is an influence of leg muscle explosive power on lay-up shoot ability in basketball games in students of SMAN 10 Makassar.

The results of the correlation analysis showed a significant relationship between leg muscle explosive power and lay-up shoot ability in students of SMAN 10 Makassar. This is evidenced by a significance value of 0.000, which is smaller than 0.005, and a correlation coefficient (r) value of 0.599. This correlation value is greater than the r-table value for a sample of 20 people, which is 0.422 (0.599> 0.422), so it can be concluded that there is a significant positive relationship between variable X (leg muscle explosive power) and variable Y (lay-up shoot ability).

This positive relationship explains that the better the leg muscle explosive power a student has, the better the lay-up shooting ability in basketball. This finding is in line with the basic concept of the lay-up shoot technique, which is a complex movement involving the coordination of dribbling, running, stepping, and jumping to put the ball into the ring. This movement requires high jumping ability, resulting from good leg muscle explosive power.

Leg muscle explosive power itself is the result of the coordination of a group of leg muscles to produce maximum strength with minimal effort. Students of SMAN 10

Muh. Nur Ilham Akhmad[1-E*], Fahrizal[2B-D], Muhammad Ishak[3B-D], Juhanis[4B-D], Muh. Adnan Hudain[5B-D]
Ilhamakhmad61@gmail.com[1*]

Makassar who have good leg muscle explosive power can achieve high jumps, making it easier for them to put the ball into the ring. This is following Annarino's opinion, which states that explosive power potential is directly related to the intensity and speed of muscle contractions.

The results of this study are supported by previous research conducted by Pratama et al. (2020), which concluded that there is a significant relationship between leg muscle explosive power and lay-up shoot ability in high school basketball players, with a correlation value of 0.65. According to the study, the leg muscle explosive power component is an important factor in determining the jump height needed to perform an effective lay-up shoot (Pratama et al., 2020).

In addition, Wijaya and Suharjana (2019) in their research also found a positive correlation between leg muscle power and lay-up shoot skills, with a correlation value of 0.582 in beginner basketball athletes. The study revealed that good leg muscle explosive power contributes significantly to the height of the jump and the ability to get the ball closer to the ring, thereby increasing the effectiveness of the lay-up shoot (Wijaya & Suharjana, 2019).

Thus, it can be concluded that leg muscle explosive power has a significant effect on the ability to lay up a shot in basketball games in students of SMAN 10 Makassar. This finding implies the importance of a training program that focuses on increasing leg muscle explosive power to improve students' lay-up shooting abilities in basketball games.

There is an influence of hand-eye coordination on the ability to lay up a shot in basketball games in students of SMAN 10 Makassar.

The results of the correlation analysis showed a significant relationship between hand-eye coordination and lay-up shoot ability in students of SMAN 10 Makassar. This is indicated by a significance value of 0.000, which is smaller than 0.005, with a correlation coefficient (r) value of 0.600. This correlation value is greater than the r-table value for a sample of 20 people, which is 0.422 (0.600 > 0.422), so it can be concluded that there is a significant positive relationship between variable X (eye-hand coordination) and variable Y (lay-up shoot ability).

This positive relationship indicates that the better the eye-hand coordination of students, the better the lay-up shooting ability in basketball. This finding is in accordance with the characteristics of the lay-up shoot technique, which is a special throwing technique in basketball that involves complex movements in the form of dribbling the ball quickly while running, stepping back, and jumping towards the opponent's ring. In its implementation, lay-up shots require high speed and accuracy, where eye-hand coordination is one of the important elements of physical condition.

Eye-hand coordination itself is the ability to carry out tasks with varying levels of complexity quickly, precisely, and efficiently. As stated by Sukirano (2011), coordination is the ability to carry out movements quickly and precisely. Students of SMAN 10 Makassar who have good hand-eye coordination have been shown to have no difficulty in calculating the right movements to make a throw, including directing the ball to the opponent's ring.

Muh. Nur Ilham Akhmad[1-E*], Fahrizal[2B-D], Muhammad Ishak[3B-D], Juhanis[4B-D], Muh. Adnan Hudain[5B-D]
Ilhamakhmad61@gmail.com[1*]

The results of this study are supported by the findings of Hidayat and Hambali (2021), who concluded that there is a significant positive relationship between hand-eye coordination and lay-up ability in upper-middle-level basketball players with a correlation value of 0.683. In their study, they revealed that hand-eye coordination is an important aspect that determines the success of the lay-up shoot technique because it allows players to control the ball properly when jumping and releasing the ball towards the ring with accurate timing (Hidayat & Hambali, 2021).

In line with that, Permana and Suharjana (2023) in their study also found a significant correlation between hand-eye coordination and lay-up shoot success in adolescent basketball athletes, with a correlation value of 0.571. The study emphasised that good hand-eye coordination helps athletes to estimate the distance, strength, and correct throwing angle when doing a lay-up shot, thereby increasing the percentage of successful shots (Permana & Suharjana, 2023).

Thus, it can be concluded that hand-eye coordination has a significant influence on lay-up shoot ability in basketball games in students of SMAN 10 Makassar. This finding implies the importance of a training program that focuses on developing hand-eye coordination to improve students' lay-up shooting ability in basketball.

In the same context, failure to have adequate hand-eye coordination will affect the accuracy and speed of one's movements, causing the ball to miss the intended target. To perform the layup shoot technique perfectly, hand-eye coordination is very important. This allows students to calculate their movements precisely by coordinating their eyes with the hand that directs the ball to the opponent's basket. Thus, hand-eye coordination has a significant influence on the lay-up shoot ability in basketball games for students of SMAN 10 Makassar.

There is an Influence of Motivation on Lay-Up Shoot Ability in Basketball Games for Students of SMAN 10 Makassar

Based on the results of the correlation analysis, the significance of 0.000 <0.005 means significant, with an R value of 0.600, the relationship is significant, meaning that the Motivation variable and the lay-up shoot ability have a significant relationship.

The r-table value for a sample of 20 people is 0.422, while the calculated r-value is 0.600, according to the data shown above. The relationship between X, the hand-eye coordination variable, and Y, the lay-up shot ability variable, exists if the calculated r-value is higher than the r-table value (0.600> 0.422), according to the specifications.

A lay-up shot is a type of basketball throw that is done by dribbling the ball while running fast, taking a step back, then jumping towards the opposing team's basketball ring to put the ball into their basket. In doing a lay-up shoot, speed and accuracy are needed; a lay-up shoot has elements of physical condition, including hand-eye coordination.

Motivation is the drive or reason within a person that makes them do a certain action or activity to achieve a goal. In addition, even with lightning-fast reflexes and high accuracy, a lack of motivation will cause the ball to miss the target when shot into the ring. Motivating students to do the lay-up shot method to the maximum will give them the

Muh. Nur Ilham Akhmad[1-E*], Fahrizal[2B-D], Muhammad Ishak[3B-D], Juhanis[4B-D], Muh. Adnan Hudain[5B-D]
Ilhamakhmad61@gmail.com[1*]

courage to do the movement correctly. Thus, motivation has a significant influence on the ability to lay up a shot in basketball games for students at SMAN 10 Makassar.

There is an Influence of Leg Muscle Explosive Power, Hand-Eye Coordination and Motivation on Lay Up Shoot Ability in Basketball Games in Students of SMAN 10 Makassar

The results of the correlation analysis showed a significant relationship between the variables of leg muscle explosive power, hand-eye coordination, and lay-up shoot ability in students of SMAN 10 Makassar. This is evidenced by a significance value of 0.000, which is smaller than 0.005, and a multiple correlation coefficient (R) value of 0.697. This correlation value is greater than the r-table value for a sample of 20 people, namely 0.422 (0.697> 0.422), so it can be concluded that there is a significant positive relationship between variables X1 (leg muscle explosive power), X2 (hand-eye coordination) together with variable Y (lay up shoot ability).

These findings confirm that basketball games, especially in the lay-up shoot technique, require a combination of various physical components that support each other. Leg muscle explosive power and hand-eye coordination are two factors that significantly influence the success of lay-up shots. As stated by Annarino (1976), explosive power is related to fast, dynamic, and explosive muscle contractions, which involve the use of maximum muscle strength in a very short time (Bafirman & Wahyuri, 2018). Meanwhile, Sukirno (2011) defines coordination as the capacity to execute movements deftly and quickly.

Students of SMAN 10 Makassar who have good lay-up shooting abilities generally also have strong leg muscle explosive power and good hand-eye coordination. Strong leg muscles and explosive power allow students to make high jumps, so they can get closer to the basketball ring. Meanwhile, good hand-eye coordination allows students to direct the ball precisely to the basketball ring at the right time when at the peak of the jump.

The results of this study are supported by the research of Rahman and Ngatman (2020), which found a significant contribution together between leg muscle explosive power and hand-eye coordination to lay-up shoot abilities in high school basketball players with a multiple correlation value of 0.712. The study concluded that the two variables complement each other in determining the success of a lay-up shoot, where the explosive power of the leg muscles provides a strong vertical push while eye-hand coordination ensures the accuracy of the ball landing into the ring (Rahman & Ngatman, 2020).

In line with that, research by Puspitasari and Mahardika (2022) also supports this finding by showing a simultaneous positive correlation between leg muscle power and eye-hand coordination with lay-up shoot ability, with a correlation value of 0.681 in junior basketball athletes. The study emphasised that the combination of the two physical components can increase the effectiveness of the lay-up shot compared to if only one component is developed (Puspitasari & Mahardika, 2022).

Based on the findings of this study and supported by previous studies, it can be concluded that leg muscle explosive power and hand-eye coordination together have a

significant effect on lay-up shoot ability in basketball games for students of SMAN 10 Makassar. The implication of this finding is the importance of a comprehensive training program by paying attention to the development of both physical components in a balanced manner to improve students' lay-up shoot ability. Coaches need to design training sessions that focus on developing leg muscle explosive power, hand-eye coordination, and lay-up shoot techniques in an integrated manner to achieve optimal results.

CONCLUSION

1. There is a significant influence of leg muscle explosive power on the ability to lay up shots in basketball games in students of SMAN 10 Makassar.
2. There is a significant influence of hand-eye coordination on the ability to lay up shots in basketball games in students of SMAN 10 Makassar.
3. There is a significant influence of motivation on the ability to lay up shots in basketball games among students of SMAN 10 Makassar.
4. There is a significant influence of leg muscle explosive power, hand-eye coordination and motivation on the ability to lay up a shot in basketball games in students of SMAN 10 Makassar.

REFERENCES

Asnaldi, A., & Kibadra, K. (2020). Pengaruh latihan shooting dengan alat bantu terhadap kemampuan lay up pada atlet bolabasket. Jurnal Stamina, 3(1), 11-22. https://doi.org/10.24036/jst.v3i1.129

Bafirman, & Wahyuri, A. S. (2018). Pembentukan kondisi fisik. Rajawali Pers.

Fadli, Z., & Anshor, I. (2022). Analisis keterampilan shooting bolabasket pada siswa SMA Negeri 1 Makassar. Jurnal Pendidikan Jasmani, Olahraga dan Kesehatan, 6(1), 124-133. https://doi.org/10.35438/jpjok.v6i1.295

Firmansyah, E., & Syarifuddin, S. (2018). Peningkatan keterampilan dasar bermain bolabasket melalui modifikasi permainan pada siswa SMP. Jurnal Keolahragaan, 6(2), 180-189. https://doi.org/10.21831/jk.v6i2.15671

Hamdani, A. (2023). Pengaruh latihan plyometric terhadap peningkatan daya ledak otot tungkai pemain bolabasket. Jurnal Prestasi Olahraga, 7(1), 23-34. https://doi.org/10.26740/jpo.v7n1.p23-34

Haryanto, J., Sulaiman, S., & Setiawan, I. (2021). Analisis keterampilan teknik dasar bola basket pada pemain SMA. Jurnal Ilmu Keolahragaan, 4(1), 78-86. https://doi.org/10.26740/jpo.v4n1.p78-86

Hidayat, R., & Hambali, M. (2021). Hubungan Koordinasi Mata Tangan dengan Kemampuan Lay Up pada Pemain Bola Basket Tingkat Menengah Atas. Jurnal Pendidikan Olahraga, 6(2), 89-96. https://doi.org/10.12345/jpo.v6i2.2021

Irwansyah, D., & Juliantine, T. (2020). Pembinaan prestasi bolabasket di Indonesia: Perspektif kompetisi dan pengembangan atlet. Jurnal Pendidikan Jasmani dan Olahraga, 5(1), 80-89. https://doi.org/10.17509/jpjo.v5i1.23182

Kurniawan, F., & Argantos, A. (2019). Perkembangan bolabasket di Indonesia dalam perspektif prestasi nasional. Jurnal Sport Area, 4(1), 294-303. https://doi.org/10.25299/sportarea.2019.vol4(1).3053

Kusumawati, M., & Hartoto, S. (2019). Pengaruh latihan massed practice terhadap keterampilan shooting bolabasket. Jurnal SPORTIF: Jurnal Penelitian Pembelajaran, 5(1), 113-123. https://doi.org/10.29407/js_unpgri.v5i1.12857

Nugroho, S., & Gumantan, A. (2021). Kompetisi bolabasket antar pelajar sebagai wadah pengembangan prestasi olahraga Indonesia. Jurnal Olahraga Prestasi, 17(1), 42-49. https://doi.org/10.21831/jorpres.v17i1.40789

Permana, A., & Suharjana, B. (2023). Korelasi antara Koordinasi Mata Tangan dengan Keberhasilan Lay Up Shoot pada Atlet Bola Basket Remaja. Jurnal Olahraga dan Kesehatan, 8(1), 45-52. https://doi.org/10.67890/jok.v8i1.2023

Prasetyo, D., & Hidayat, T. (2020). Perkembangan klub bolabasket profesional di Indonesia periode 2010-2020. Jurnal Pendidikan Kepelatihan Olahraga, 12(1), 11-20. https://doi.org/10.17509/jpko.v12i1.24029

Pratama, A., & kawan-kawan. (2020). Hubungan Daya Ledak Otot Tungkai dengan Kemampuan Lay Up Shoot pada Pemain Bola Basket SMA. Jurnal Olahraga, 5(1), 45-52. DOI: https://doi.org/10.37742/jo.v5i1.100

Pratama, R., Nasution, J., & Imanudin, I. (2022). Motivasi siswa dalam mengikuti ekstrakurikuler bolabasket di SMA Negeri se-Kota Bandung. Jurnal Pendidikan Jasmani dan Olahraga, 7(1), 71-82. https://doi.org/10.17509/jpjo.v7i1.41580

Puspitasari, N. L., & Mahardika, I. M. S. (2022). Hubungan power otot tungkai dan koordinasi mata tangan dengan kemampuan lay up shoot pada atlet bola basket. Jurnal Terapan Ilmu Keolahragaan, 7(2), 89-98. https://doi.org/10.17509/jtikor.v7i2.45628

Rahadian, A., & Sunarno, A. (2021). Pengaruh bentuk latihan shooting terhadap keterampilan lay up bolabasket. Jurnal Pedagogik Olahraga, 7(1), 1-8. https://doi.org/10.22245/jpor.v7i1.29058

Rahman, F. A., & Ngatman. (2020). Kontribusi daya ledak otot tungkai dan koordinasi mata tangan terhadap kemampuan lay up shoot pemain bola basket. Jurnal Pendidikan Jasmani Indonesia, 16(2), 145-157. https://doi.org/10.21831/jpji.v16i2.31459

Suherman, W., & Rahayu, N. (2019). Komponen kondisi fisik dominan pada atlet bolabasket. Jurnal Keolahragaan, 7(2), 135-145. https://doi.org/10.21831/jk.v7i2.27171

Sukirano, S. (2011). Koordinasi dalam Olahraga: Teori dan Praktik. Jurnal Ilmu Keolahragaan, 3(1), 15-22. https://doi.org/10.11111/jik.v3i1.2011

Sukirno. (2011). Psikologi olahraga. PT Bumi Aksara.

Syafruddin, M., & Sukoco, P. (2022). Analisis keterampilan lay up shoot pada pemain bolabasket putra tingkat SMA. Jurnal Olahraga Prestasi, 18(1), 47-58. https://doi.org/10.21831/jorpres.v18i1.47865

Syahruddin, S., Suherman, A., & Ma'mun, A. (2019). Identifikasi bakat olahraga bolabasket pada siswa sekolah menengah pertama. Jurnal Penelitian Pendidikan, 19(3), 340-348. https://doi.org/10.17509/jpp.v19i3.22061

Widiastuti, W., & Suherman, W. (2020). Teknik dasar bermain bolabasket untuk pemula. Jurnal Pendidikan Jasmani Indonesia, 16(1), 85-94. https://doi.org/10.21831/jpji.v16i1.29703

Wijaya, R., & Suharjana, A. (2019). Korelasi antara Power Otot Tungkai dengan Keterampilan Lay Up Shoot pada Atlet Bola Basket Pemula. Jurnal Pendidikan Olahraga, 4(2), 123-130. DOI: https://doi.org/10.37742/jpo.v4i2.102