# THE EFFECT OF AGILITY, ANKLE COORDINATION, AND CONFIDENCE ON SOCCER DRIBBLING SKILLS IN AMATEUR ATHLETES

#### Khairul Anwar <sup>1</sup>, Kamal Firdaus <sup>2</sup>\*, Arsil <sup>3</sup>, Syahrastani <sup>4</sup>, Fahmil Haris <sup>5</sup> and Ali Munir <sup>6</sup>

<sup>1,2,3,4</sup> Department of Sports Education, Universitas Negeri Padang, Indonesia.
 <sup>5</sup> Department of Health and Recreation, Universitas Negeri Padang, Indonesia.
 <sup>6</sup> Departement of Sport and Health Science, Universitas Negeri Yogyakarta, Indonesia.
 \*Corresponding Author Email: dr.kamalfirdaus.mkes.aifo@gmail.com

#### DOI: 10.5281/zenodo.11392846

#### Abstract

Agility component, ankle coordination is a component that has an important contribution in supporting driblling techniques, besides that self-confidence is also a psychological that must be possessed by athletes both beginners and professionals. This study aims to see and analyze the direct influence and indirect influence between agility, ankle coordination and confidence on dribbling in football school players (SSB) Cikal Perintis Tebo Regency, Jambi Province. This research method is quantitative associative with a path analysis approach (Path Analysis). A total of 44 samples of SSB Cikal Perintis players were taken by Purposive Sampling technique. Agility instruments using the Illinois Aglity Run Test, ankle coordination using soccer wall volleyball, confidence using questionnaires, and dribbling tests. The data were analyzed using path analysis through structural model testing at  $\alpha$  = 0.05. The results of the hypothesis testing study showed that: 1. There is a direct effect of agility on dribbling (pv1 = 0.314 or 9.86%). 2. There is a direct effect of ankle coordination on dribbling ( $p_{y2}$  = -0.331 or 9.67%). 3. There is a direct influence of confidence on dribbling ( $p_{y2} = -0.491$  or 24.11%). 4. There is an indirect effect of agility through confidence in dribbling ( $p_{31}, p_{v3} = 0.232 > p_{v1} = 0.314$  or 29.81%). 5. There is an indirect influence of ankle coordination through confidence on dribbling ( $p_{32}$ ,  $p_{y3} = 0.248 > p_{y2} = -0.311$ or 0.40%). 6. There is an effect of agility, ankle coordination, and confidence on dribbling (R<sub>square</sub> = 0.470 or an influence of 47.0%).

Keywoard: Agility, Ankle Coordination, Confidence, Dribbling, Athletes.

#### INTRODUCTION

Football is a simple game sport that is very popular, by all ages almost all over the world (Hirwana et al., 2023). In Indonesia, football has been considered a very popular sport among the people, because soccer is very practical to play, and is liked by many age groups, both young and old, from men to women throughout Indonesia (Rahmatullah, 2021). The development of football is also fully supported by the community and government, this can be shown that there is competition between football schools and tournaments between clubs organized by various regions and other official events to support the search for talents, especially for novice athletes (Fitrian et al., 2023).

The process of coaching achievements and sports development is carried out systematically through the stages of introduction, monitoring, guidance, continuous talent development in order to get maximum achievements (Putra et al., 2022). Of course, it is necessary to pay attention to several factors that affect whether or not an achievement can be achieved optimally (Asmara, Indrawan, et al., 2023). Factors affecting performance include internal factors such as technical, tactical, psychological and physical conditions (Pahlevi & Munir, 2023). And external factors are a performance that comes from outside the player, which includes facilities and

infrastructure, the role of the coach and training schedule with the chosen training method should be adjusted to the player's physical ability to achieve optimal results in the development of basic soccer technical skills, the role of parents and athletes' nutrition (Gigsy et al., 2022).

Internal factors, a physical condition that is a factor in improving the performance of soccer players (Asmara, et al., 2023). Physical freshness is the skill level of the body to adapt to physical strength given by the load without causing significant fatigue (Zahed et al., 2022). As stated by (Fajrin et al., 2021) efforts to improve achievement in improving one's physical quality are largely determined by exercise and loads that are full of challenges and risks. A player's soccer game must be able to have a strong physical level, both general and overall physical levels (Edwards et al., 2017). The level of strong physique is determined by how large or low the level of physical condition in the energy and muscular fitness of a player or athlete (Nia et al., 2022).

Energy availability is also related to the anaerobic composition of lactate and alactic (Munir et al., 2023). Meanwhile, muscle fitness is a condition of all biomotor components (Bafirman, Wahyuri, et al., 2023). Therefore, an athlete must be able to meet a strong, good, and fit physical condition (Fort-Vanmeerhaeghe et al., 2022). Because without a person's perfect physical qualities and fitness categories, players cannot play with a good mastery of technical skills and tactics in football (Nia et al., 2023). The parts of physical condition that can affect a person's technical skills, tactics, and achievements are: endurance, strength, muscle explosiveness, speed, flexibility, coordination, agility, accuracy, and balance (Azra et al., 2024).

If one element cannot be mastered by the player precisely, effectively, and efficiently, then a person's achievement will be difficult to achieve (Bafirman, et al., 2023). Therefore, coaches must be able to foster and organize strategies to improve the quality of players (Syahputra et al., 2023). One of them is by improving athletes' mental training systematically and continuously to be able to form and develop athletes' mental skills that can have prestative ambition, hard work, independence and commitment (Munir et al., 2024). With the rapid development of football, the demand for quality games is very important, therefore players expect perfect technique and support to achieve prestigious achievements in major championships, one of which is dribbling techniques (Wibowo & Yulianto, 2021). According to (Sudirman et al., 2022) stated that dribbling is a technique applied to players to push the ball from one area to another in matches or during training. Dribbling technique itself is one of the elements that affect the success of a player in touch games (Maliki et al., 2023). Factors that influence a person when dribbling are dribbling speed, agility, flexibility, balance, strength, coordination, stamina, vision, foot contact with the ball (Saril et al., 2023). Basically, every player is expected to have good playing ability, it is the most important part in football apart from the goal itself (Wahid, 2023).

Based on observations that occurred at the Cikal Perintis football school located in Tebo Regency, Jambi Province. Finding the results that the pioneer forerunner football school experienced a decline in achievement in terms of championships. This is based on observations and interviews of researchers with the coach of the Cikal Perintis Football School, Tebo Regency, Jambi Province, the mastery of dribbling for early age players still does not get maximum results. Researchers suspect that players of the Cikal Perintis Football School, Tebo Regency, Jambi Province, tend to be slow and less agile when dribbling in an attempt to pass opponents. Based on observations on the field, this was proven when SSB Cikal Perintis conducted a trial match experiencing a crushing defeat against SSB Boca Junior. Judging from the agility possessed by SSB Cikal Perintis players when moving and changing direction quickly to outwit the opponent's defense by opening up space in the game is still not optimal, the movements made also seem stiff, the coordination of ball and foot hits is often not optimal, not flexible, and less agile in making movements and easy to read by opponents, so that SSB Cikal Perintis players lack confidence in outwitting the opponent's defense and mastering The course of the match.

Although dribbling techniques have been taught by coaches, improvement has not been felt much. This can be seen when players conduct training sessions and matches. Mastery of technique when dribbling players is unstable and the ball is not well controlled, making it easier for opponents to grab the ball from the player. During training, there are players who lack passion and enthusiasm in undergoing a dribbling training program due to a monotonous and less optimal training program because the coach is still licensed stage D so that a coach's lack of experience in implementing an effective and maximum training program. The principle of dribbling technique is also needed in the ability to control the ball when the player dribbles the ball, dribbling proficiency is the sum of the ability to control the ball in a limited area in limited steps when the player is stopping, running, spinning and so on. In doing dribbling, physical conditions such as eye-foot coordination and speed are needed.

Coordination is the result of a combination of performance and quality of muscles, bones, and joints in producing an effective and efficient motion (Munir, et al., 2024). Coordination basically all sports require coordination, because coordination is a component of physical condition that is very important to master sports skills and is a very complex thing, in order to unite several movements into an effective movement, a person must have good coordination. In addition to technical and physical complications, psychological factors also affect players in dribbling (Rahmi & Kamadi, 2023). This can be seen in the situation of the match SSB Cikal Perintis players are not sure or doubt about their own abilities so that at the time of the match SSB Cikal Perintis often loses, which if improved can hinder the mental development of the player in the future. From the psychological factors of players can support their abilities and vice versa psychological factors can also inhibit players in their abilities (Rahmatullah, 2021). There are psychological factors in question such as: mental, confident, anxiety, concentration or motivation that will affect players in training and during matches (Dahlan et al., 2020). These elements cannot be separated in an effort to achieve good dribbling ability (Mappaompo et al., 2024). Therefore, the more confidence players increase, the player will be able to understand and practice dribbling techniques well and optimally.

#### METHOD

This type of research is quantitative research using a causal affiliation approach. This research is classified as quantitative research using simple regression and the fact of multiple regression evaluation strategies observed using path analysis. The following is a form of research design that will support the sustainability of this research.

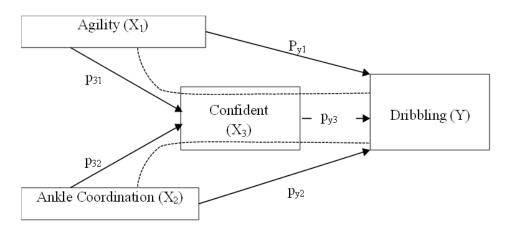


Figure 1: Research Design

Infromation:

 $X_1 = Agility$ 

X<sub>2</sub> = Ankle Coordination

 $X_3 = Confident$ 

$$Y = Dribbling$$

The population in this study is 95 Cikal Perintis football school players, Tebo Regency, Jambi Province. Furthermore, sampling was taken by purposive sampling technique based on inclusion criteria set by researchers, including players with active training categories with a range of U 12 - U 15. So that the sample in this study amounted to 44 players. The tests carried out in this research instrument are ankle coordination tests using the soccer wall volley test, on agility tests using the Illinois Aglity Run Test, and instruments to measure confidence used questionnaires or Likert scale questionnaires with five alternative answers that can be applied consisting of strongly agree, agree, disagree, disagree, and strongly disagree, and instruments in measuring dribbling ability using dribbling tests.

Data analysis techniques are applied in descriptive and inferential models. Before testing the hypothesis, normality error testing of regression estimation estimates was carried out using the Liliefors method, in addition to testing the significance and linearity of regression using anava analysis.

## **RESULT AND DISCUSSION**

## Result

The data obtained in this study were grouped consisting of, namely agility data  $(X_1)$ , ankle coordination  $(X_2)$ , confidence data  $(X_3)$  and dribbling in football school players Cikal Perintis U-12 - U-15 Tebo Regency, Jambi Province. Here's a description of the data in this study.

## 1. Agility Data Analysis (X<sub>2</sub>).

From the agility data using the Illinois Aglity Run Test conducted on 44 Cikal Perintis soccer school players, Tebo Regency, Jambi Province, the highest value = 19.31 seconds, and the lowest value = 15.57 seconds, mean = 17.358 seconds, and Standard Deviation = 0.908 seconds.

No	Interval Class	Cotogony	Frequ	Frequency		
		Category	Absolute	Relative		
1	15.57-16.31	Excellent	5	11,4%		
2	16.32-17.06	Good	11	25,0%		
3	17.07-17.81	Кеер	15	34,1%		
4	17.82-18.56	Less	10	22,7%		
5	18.57-19.31	Very Lacking	3	6,8%		
Sum			44	100%		

## Table 1: Normative Reference Assessment of the Illinois Agility Run Test

Based on the table above, it can be seen that the test results of the interval class 15.57-16.31 seconds with the very good category are 5 people (11.4%), the interval class with the good category 16.32-17.06 seconds as many as 11 people (25.0%), the interval class 17.7-17.81 seconds the medium category as many as 15 people (34.1%), the interval class 17.82-18.56 seconds the category is less than 10 people (22.7%), the interval class is 18.57-19.31 seconds the category is very less as many as 3 people (6.8%).

## 2. Ankle Coordination (X<sub>1</sub>)

From the data on the results of ankle coordination using the soccer wall volley test conducted on 44 soccer school players Cikal Perintis Tebo Regency, Jambi Province, the highest value was = 18 and the lowest value = 10, the Mean was = 12.61 and the Standard Deviation was = 2.423.

No	Interval Class	Cotogony	Frequency		
NO		Category	Absolute	Relative	
1	18-19	Excellent	2	4,5%	
2	16-17	Good	5	11,4%	
3	14-15	Keep	7	15,9%	
4	12-13	Less	14	31,8%	
5	10-11	Very Lacking	16	36,4%	
Sum			44	100%	

Based on the table above, it can be seen that the test results of interval class 18-19 with very good category are 2 people (4.5%), interval class with good category 16-17 as many as 5 people (11.4%), interval class 14-15 medium category as many as 7 people (15.9%), interval class 12-13 category less as many as 14 people (31.8%), interval class 10-11 category very less as many as 16 people (36.4%).

## 3. Confident (X<sub>3</sub>)

From the agility results data using a confidence test conducted on 44 football school players Cikal Perintis Tebo Regency, Jambi Province, the highest value was = 248 and the lowest value = 180, the Mean was = 214.23, and the Standard Deviation was = 19.431.

 Table 3: Normative Reference Assessment Self-Confidence Test

No	Interval Class	Cotogony	Frequency	
NO		Category	Absolute	Relative
1	236-249	Excellent	6	13,6%
2	222-235	Good	9	20,5%
3	208-221	Кеер	8	18,2%
4	194-207	Less	15	34,1%
5	180-193	Very Lacking	6	13,6%
Sum			44	100%

Based on the table above, it can be seen that the test result data of interval class 236-249 with very good category is 6 people (13.6%), interval class with good category 222-235 as many as 9 people (20.5%), interval class 208-221 medium category as many as 8 people (18.2%), interval class 194-207 category less as many as 15 people (34.1%), interval class 180-193 category very less as many as 16 people (13.6%).

### 4. Dribbling (X<sub>4</sub>)

From the agility data using dribbling tests conducted on 44 football school players Cikal Perintis Tebo Regency, Jambi Province, the highest value = 14.95 seconds and the lowest value = 12.54 seconds, Mean = 13.616 seconds, and Standard Deviation = 0.546 seconds.

No	Interval Class	Category	Frequency		
NO		Calegory	Absolute	Relative	
1	12.54-12.94	Sempurna	3	6,8%	
2	12.95-13.35	Baik Sekali	11	25,0%	
3	13.36-13.76	Baik	12	27,3%	
4	13.77-14.17 Sedang		9	20,5%	
5	14.18-14.58	Kurang	6	13,6%	
6	14.59-14.99	Sangat Kurang	3	6,8%	
	Sum			100%	

**Table 4: Normative Reference Assessment of Dribbling Test** 

Based on the table above, it can be seen that the test results of the interval class seconds 12.54-12.94 with the perfect category are 3 people (6.8%), the interval class with the very good category 12.95-13.35 seconds as many as 11 people (25.0%), the interval class 13.36-13.76 seconds the good category as many as 12 people (27.3%), the interval class 13.77-14.17 seconds the medium category as many as 9 people (20.5%), the interval class 14.18-14.58 seconds the category is less as many as 6 people (13.6%), The interval class of 14.59-14.99 seconds category is very less than 3 people (6.8%).

#### 5. Normality Test

 Table 5: Normality Testing Summary

Estimated Error	Sig.	P-Value	Information
X <sub>1</sub> above Y	0,687		Usual
X <sub>2</sub> above Y	0,823		Usual
X <sub>3</sub> above Y	0,917		Usual
X <sub>1</sub> or X <sub>3</sub>	0,540	0,05	Usual
X <sub>2</sub> or X <sub>3</sub>	0,292		Usual

Based on the data above, the value of Sig. for each variable is greater than the P-Value = 0.05. In other words, it can be concluded that it is normally distributed.

#### 6. Linearity Test

 Table 6: Summary of Research Data Test Testing

Estimated Error	Sig.	P-Value	Information
X <sub>1</sub> above Y	0,242		Linear
X <sub>2</sub> above Y	0,061		Linear
X <sub>3</sub> above Y	0,670		Linear
X <sub>1</sub> or X <sub>3</sub>	0,302	0,05	Linear
X <sub>2</sub> or X <sub>3</sub>	0,263		Linear

Based on the data above, the value of Sig. >  $\alpha$  = 0.05 was obtained. In other words, it can be concluded that variables tend to form straight lines (Linear).

## 7. Test the hypothesis

Туре	Variable	Koef Beta	Sig.	P-Value	Information
Structural 1	X <sub>1</sub> ,X <sub>3</sub> (p31)	-0,472	0,001		Significant
Structurar I	X <sub>2</sub> ,X <sub>3</sub> (p32)	-0,506	0,000		Significant
	X <sub>1</sub> ,Y(py1)	0,314	0,027		Significant
Structural 2	X <sub>2</sub> Y(py2)	-0,311	0,031	0,05	Significant
Structural 2	X <sub>3</sub> Y(py3)	-0,491	0,002		Significant

### Table 7: Summary of Path Coefficients Between Research Variables

Based on the Table above, the path coefficient  $(p_{31})$  obtained the value Sig. =  $\alpha$  0.001 <  $\alpha$  = 0.05. The path coefficient  $(p_{32})$  obtained the value Sig. = 0.000 <  $\alpha$  = 0.05. The path coefficient  $(p_{y1})$  obtained the value Sig. = 0.027 <  $\alpha$  = 0.05. The path coefficient  $(p_{y2})$  obtained the value Sig. = 0.031 <  $\alpha$  = 0.05. Next, the path coefficient  $(p_{y3})$  obtained the value of Sig. = 0.002 <  $\alpha$  = 0.05.

## DISCUSSION

The game of soccer is synonymous with fast and agile without losing balance, the agility of a person will be able to master the game (Wahid, 2023). Agility is needed when such a fast and balanced condition of the body moves to carry the ball and pass the enemy, so that it is easy to dribbling the ball and control the ball when in control of the game (Feng et al., 2024). According to (Fajrin et al., 2021) argues that agility is a complex set of skills that meet each other for athletes to respond to external stimuli with rapid deceleration, change of direction and acceleration. So it can be concluded that agility has an important role in the game of soccer in dribbling the ball. Based on research conducted by (Rahmatullah, 2021) There is a significant relationship between agility and dribbling skills in football. When compared to other variables, agility is one of the variables that has a significant influence. In theory and theoretical framework in the variable of leg muscle strength can be accepted empirically, that agility has a relationship and influence on dribling skills in the game of soccer (Peña-González et al., 2024).

Coordination is one component of physical condition that has an important role, especially for sports games including soccer games (Ati et al., 2024). Almost all movements in football games require ankle coordination (Tienza-Valverde et al., 2023). Dribling the ball is a soccer technique that requires good coordination (Wang & Guo, 2023). Ankle coordination plays a role in playing the ball well and smoothly by looking at the game situation (Hassan et al., 2023). According to (Munir et al., 2024) states that a skill or skill requires coordination. Coordination required in skills including foot-eye coordination and eye-hand coordination, ankle coordination is needed in movements such as kicking and dribbling the ball.

Self-confidence is one of the psychological elements that players must have to dribbling (Teoldo et al., 2024). All elements of motion can be used optimally, if players have confidence when dribbling the ball. This self-confidence aims to make players in dribbling calmly, full of confidence, can overcome obstacles encountered, are able to control movements and make the right decisions (Munir et al., 2023). Players who have a lack of confidence when dribbling the ball will often hesitate to make decisions

when they want to pass the opponent, resulting in the ball being easily seized by the opponent. In this case, it is necessary to establish confidence for soccer players when dribbling the ball and passing opponents.

Agility is one of the components of physical freshness that is indispensable in all activities that require speed changes in body position and parts (Sudirman et al., 2022). Agility is also needed in freeing yourself from the opponent's control by dribbling past the opponent by attacking to create a goal that will lead to victory (Mappaompo et al., 2024). The more agile the player's movement, the better the ability to dribbling the ball in the soccer game, on the contrary, the lower a person's agility, the dribbling ability of the ball in the soccer game is also not good (Johnstone et al., 2017). agility is the ability to change body position quickly (Hanafi et al., 2023). Therefore, agility plays an important role in a person's ball dribbling ability in the game of soccer.

This self-confidence aims so that players in dribbling calmly, full of confidence, can overcome obstacles encountered, are able to control movements and can make the right decisions (Bar-Eli et al., 2023). Players who have a lack of confidence when dribbling will hesitate to make decisions that can result in the ball being controlled will be easily seized by the enemy, hitting the ball with improper feet so that players will not be optimal in dribbling (Hirwana et al., 2023). In this case, it is necessary to have a steady sense of confidence for soccer players in ball possession, especially in dribbling techniques.

According to (Wahid, 2023) Coordination is the ability to perform movements with various levels of difficulty quickly and efficiently and with precision. Coordination is needed in almost all sports, including soccer (Smits-Engelsman & Verbecque, 2022). The form of coordination exercises given to middle school-aged children is based on the basic pleasurable movement stage (Fort-Vanmeerhaeghe et al., 2022).

The coordination needed by every player in playing soccer is coordination between the ankles, because the eyes are the center where the view is to see the conditions around the field and the role of the feet as ball processors (Dahlan et al., 2020). So from here, exercises that can be given such as variations in footsteps, passing-control and other forms of exercise combined with the direction of eye gaze in order to easily harmonize between eye gaze and foot movement soccer games that are dominated by the use of the feet make the role of foot and ball wear easy to balance by producing good dribbling techniques.

All elements of motion can be used optimally if athletes have confidence when dribbling (Mappaompo et al., 2024). This self-confidence aims so that players in dribbling the ball and mastering the game calmly, full of confidence can overcome obstacles encountered, are able to control movements, and can make the right decisions.

Players who have a lack of confidence when dribbling the ball will hesitate to make decisions, which results in the ball not being in accordance with what is desired when in possession, not passing the opponent, the ball is easily seized by the opponent so that the technique of dribbling the ball cannot be implemented optimally (Fenner et al., 2022). In this case, it is necessary to establish self-confidence for soccer players in doing good dribbling skills.

#### CONCLUSION

Based on the results of the study, it can be concluded that the components of agility, ankle coordination, and trust have a very significant impact on maximum dribbling results. It is proven that good agility not only emphasizes the load of strength and balance, but also on the speed shown in each dribbling. In addition, ankle coordination plays a role in playing the ball well and smoothly by looking at the game situation. And confidence has a big role for players to stay focused and confident in facing the ongoing match. Players during the match must assess their performance by always showing body condition and increase their confidence level by doing some form of focus training in performing techniques with the ball or without the ball.

#### References

- 1) Ahmad Kafi Maliki , Fajar Ari Widyatmoko, P. K. (2023). Hubungan kelincahan, kecepatan, koordinaasi mata- kaki dan keseimbangan dalam kemampuan menggiring bola pada permainan sepakbola. *Seminar Nasional Ke-Indonesiaan FPIPSKR Universitas PGRI Semarang*, *8*(1), 2183–2190.
- Asmara, M., Indrawan, W., Munir, A., & Fitrian, Z. A. (2023). Contribution of Agility and Flexibility to Football Dribbling Skills in Junior High School Extracurricular Students. *JUMORA: Jurnal Moderasi Olahraga*, 3(1), 48–59. https://doi.org/10.53863/mor.v3i1.684
- 3) Asmara, M., Munir, A., Fitrian, Z. A., Munir, S., & Siswoyo, J. (2023). The Performance Of Futsal Coaches In The Application Of Process Methods And. *JUARA: Jurnal Olahraga*, 1.
- 4) Ati, A., Bouchet, P., & Ben Jeddou, R. (2024). Using multi-criteria decision-making and machine learning for football player selection and performance prediction: A systematic review. *Data Science and Management*, *7*(2), 79–88. https://doi.org/10.1016/j.dsm.2023.11.001
- 5) Azra, Z. R., Suherman, W. S., & Munir, A. (2024). The Effect of Training Methods and Body Mass Index on the Speed and Agility of Klaten SSB Players Age 13-14 Years. *International Journal of Multidisciplinary Research and Analysis*, 07(01), 384–393. https://doi.org/10.47191/ijmra/v7-i01-47
- 6) Bafirman, B., Wahyuri, A. S., Vellya, V., Zarya, F., & Munir, A. (2023). Comparison of VO2Max Capacity and Lung Vital Capacity of Junior High School Students: Highlands and Lowlands. *JOSSAE (Journal of Sport Science and Education)*, 8(1), 69–76. https://doi.org/10.26740/jossae.v8n1.p69-76
- 7) Bafirman, Munir, A., Zarya, F., & Nia, T. A. (2023). Comparison of Learning Methods Based on Animals Name and Conventional Learning to Improve Free Throw Shooting Skills in Basketball Games. *International Journal of Human Movement and Sports Sciences*, *11*(5), 1150–1157. https://doi.org/10.13189/saj.2023.110524
- Bar-Eli, M., Lidor, R., Lath, F., & Schorer, J. (2023). The feudal glove of talent-selection decisions in sport –Strengthening the link between subjective and objective assessments. *Asian Journal of Sport and Exercise Psychology*, 4(August 2023), 1–6. https://doi.org/10.1016/j.ajsep.2023.09.003
- 9) Dahlan, F., Hidayat, R., & Syahruddin, S. (2020). Pengaruh komponen fisik dan motivasi latihan terhadap keterampilan bermain sepakbola. *Jurnal Keolahragaan*, *8*(2), 126–139. https://doi.org/10.21831/jk.v8i2.32833
- 10) Edwards, J., Jeffrey, S., May, T., Rinehart, N. J., & Barnett, L. M. (2017). Does playing a sports active video game improve object control skills of children with autism spectrum disorder? *Journal of Sport and Health Science*, *6*(1), 17–24. https://doi.org/10.1016/j.jshs.2016.09.004
- 11) Fajrin, S. N., Agustiyawan, A., Purnamadyawati, P., & Mahayati, D. S. (2021). Literature Review : Hubungan Koordinasi Terhadap Keterampilan Menggiring Bola Pada Pemain Sepak Bola. *Indonesian Journal of Physiotherapy*, *1*(1), 6. https://doi.org/10.52019/ijpt.v1i1.2605

- 12) Feng, W., Wang, F., Han, Y., & Li, G. (2024). The effect of 12-week core strength training on dynamic balance, agility, and dribbling skill in adolescent basketball players. *Heliyon*, *10*(6), e27544. https://doi.org/10.1016/j.heliyon.2024.e27544
- 13) Fenner, J., Doncaster, G., McRobert, A., Ford, P., Iga, J., & Unnithan, V. (2022). A preliminary investigation into the evaluation of possession-based small-sided games and the influence of decision-making ability in identifying talented pre-pubertal soccer players. *Apunts Sports Medicine*, *57*(214), 100378. https://doi.org/10.1016/j.apunsm.2021.100378
- 14) Fitrian, Z. A., Graha, A. S., Nasrulloh, A., Munir, A., Asmara, M., & Irsyad, N. Y. (2023). The effect of circuit training, fartlek, and small-sided games on maximum oxygen consumption capacity building in futsal players. *Health, Sport, Rehabilitation, 9*(2), 48–60. https://doi.org/10.34142/HSR.2023.09.02.04
- 15) Fort-Vanmeerhaeghe, A., Arboix-Alió, J., & Montalvo, A. M. (2022). Return-to-sport following anterior cruciate ligament reconstruction in team sport athletes. Part II: Progressive framework. *Apunts Sports Medicine*, *57*(213). https://doi.org/10.1016/j.apunsm.2021.100361
- Gigsy, R., Putra, A. N., Arsil, A., & Yulifri, Y. (2022). Pengaruh Model Latihan Dribbling Terhadap Peningkatan Kemampuan Dribbling Bola Pemain Sekolah Sepakbola. *Jurnal JPDO*, *5*(7), 100– 105. http://jpdo.ppj.unp.ac.id/index.php/jpdo/article/download/1073/468
- 17) Hanafi, E. M., Suwirman, Erianti, & Saputra, M. (2023). Hubungan Daya Ledak Otot Tungkai dan Koordinasi Mata-kaki dengan Kemampuan Shooting Pemain Sepakbola. *Jurnal Pendidikan Dan Olahraga*, *6*(4), 149–154. http://jpdo.ppj.unp.ac.id/index.php/jpdo/article/view/1474
- 18) Hassan, A. K., Bursais, A. K., Ata, S. N., Selim, H. S., Alibrahim, M. S., & Hammad, B. E. (2023). The effect of TRX, combined with vibration training, on BMI, the body fat percentage, myostatin and follistatin, the strength endurance and layup shot skills of female basketball players. *Heliyon*, 9(10), e20844. https://doi.org/10.1016/j.heliyon.2023.e20844
- 19) Hirwana, P., Alnedral, A., Komain, A., Padli, P., Zarya, F., Sabillah, M. I., & Munir, A. (2023). The Effect of Command Training Methods, Exploration and Motivation Training Methods on the Smash Ability Results of Junior Sepak Takraw Athletes. *International Journal of Multidisciplinary Research and Analysis*, *06*(02), 518–530. https://doi.org/10.47191/ijmra/v6-i2-08
- 20) Johnstone, A., Hughes, A. R., Janssen, X., & Reilly, J. J. (2017). Pragmatic evaluation of the Go2Play Active Play intervention on physical activity and fundamental movement skills in children. *Preventive Medicine Reports*, *7*, 58–63. https://doi.org/10.1016/j.pmedr.2017.05.002
- 21) Jufrianis, Putra, A. W., & Noviardila, I. (2024). Hubungan koordinasi mata kaki dan percaya diri terhadap akurasi shooting sepak bola. *Jurnal Penjakora*, *11*(April), 1–7.
- 22) Mappaompo, M. A., Asjaya, I., Muhammadong, M., Nur, M., & Hudain, M. A. (2024). Koordinasi Mata Kaki, Kelincahan Dan Percaya Diri Terhadap Hasil Belajar Menggiring Bola. *Jambura Journal of Sports Coaching*, 6(1), 34–44. https://doi.org/10.37311/jjsc.v6i1.23228
- 23) Munir, A., Nasrulloh, A., Nyoman, C., Citra, E., & Kerihi, G. (2023). The Relationship Between Motivation and Mentality towards Athletes 'Psychology in Supporting Football Achievement : A Literature Study. *JOSSAE : Journal of Sport Science and Education*, *7*, 107–116.
- 24) Munir, A., Sumaryanti, Rismayanthi, C., Bafirman, Nia, T. A., & Zarya, F. (2024). Reviving ancestral heritage: games traditional sports as key to improve innovative child endurance. *Fizjoterapia Polska*, *1*(1).
- 25) Munir, A., Sumaryanti, Rismayanthi, C., Nasrulloh, A., Padli, Prayoga, A. S., Nia, T. A., Zarya, F., & Rahman, D. (2024). The effect of animal name and wall shoot training on the accuracy of shooting free throw in terms of hand eye coordination in beginner athletes. *Retos*, *56*, 538–545. http://repo.iain-tulungagung.ac.id/5510/5/BAB 2.pdf
- 26) Nia, T. A., Munir, A., & Suhartini, B. (2022). Modification of Wooden Ball Bullets to Improve the Skillful Motion of Bullet Repellent Games Against Elementary School Students. *Edumaspul: Jurnal Pendidikan*, 6(2), 2203–2209. https://doi.org/10.33487/edumaspul.v6i2.4556

- 27) Nia, T. A., Nasrulloh, A., Nugroho, S., & Munir, A. (2023). The Contribution of Limb Muscle Power Components, Leg Length, and Pelvic Flex to Dollyo Chagi's Kick Lampung Taekwondo Athlete. *International Journal of Human Movement and Sports Sciences*, *11*(5), 1028–1035. https://doi.org/10.13189/saj.2023.110511
- 28) Pahlevi, A., & Munir, A. (2023). Influence of Small-Sided Games and Motor Ability in Performance Games Development. *JUMORA: Jurnal Moderasi Olahraga*, *3*(1), 1–10. https://doi.org/10.53863/mor.v3i1.538
- 29) Peña-González, I., Henríquez, M., Sarabia, J. M., & Moya-Ramón, M. (2024). Age does not influence the physical performance of football players with cerebral palsy. *Science and Sports*, *xxxx*. https://doi.org/10.1016/j.scispo.2023.10.003
- 30) Putra, D., Indah, D., Elkadiowand, I., Darni, D., Rasyid, W., Nanda, F. A., & Munir, A. (2022). Economic Status to Students' Physical Education Learning in Elementary School, Padang City. *JUMORA: Jurnal Moderasi Olahraga*, 2(2), 161–173. https://doi.org/10.53863/mor.v2i2.515
- Rahmatullah, M. I. (2021). Analisis kelincahan, kecepatan, dan koordinasi mata-kaki dengan kemampuan dribbling tim sepak bola uss (uir soccer school). *Journal of Sport Education (JOPE)*, 3(2), 137. https://doi.org/10.31258/jope.3.2.137-145
- Rahmi, I., & Kamadi, L. (2023). Analisis Kondisi Fisik Terhadap Kemampuan Menggiring Bola Pada Permainan Sepakbola. *Halaman Olahraga Nusantara: Jurnal Ilmu Keolahragaan*, 1(1), 74– 85.
- 33) Saril, S., Dahrial, D., & Antoni, P. (2023). Kontribusi Kekuatan Otot Lengan Dan Kelentukan Pergelangan Tangan Terhadap Ketepatan Shooting Petanque. *Integrated Sport Journal (ISJ)*, 1(2), 78–88. https://doi.org/10.58707/isj.v1i2.550
- 34) Smits-Engelsman, B., & Verbecque, E. (2022). Pediatric care for children with developmental coordination disorder, can we do better? *Biomedical Journal*, *45*(2), 250–264. https://doi.org/10.1016/j.bj.2021.08.008
- 35) Sudirman, Syahruddin, & Ricardo Valentino Latuheru. (2022). Hubungan Kecepatan Lari 30 Meter, Zig-Zag Run, dan Koordinasi Mata Kaki Terhadap Kemampuan Menggiring Bola dalam Permainan Sepakbola. *Jurnal Dunia Pendidikan*, *3*(1), 37–53. https://doi.org/10.55081/jurdip.v3i1.690
- 36) Syahputra, F., Syahrastani, Arsil, & Haripah, L. (2023). Hubungan Daya Ledak Otot Tungkai dan Koordinasi Mata Kaki dengan Akurasi Shooting Pemain Futsal SMP N 15 Padang. *Jurnal Pendidikan Dan Olahraga, Volume 6 N*(11), 121–128.
- 37) Teoldo, I., Dambroz, F., & Brito, J. (2024). Performance of soccer players under acute physical fatigue: An approach based on cognitive, tactical and physical aspects. *Heliyon*, 10(9). https://doi.org/10.1016/j.heliyon.2024.e30516
- 38) Tienza-Valverde, A., Hernández-Beltrán, V., Espada, M. C., Bravo-Sánchez, A., Santos, F. J., & Gamonales, J. M. (2023). Analysis of individual performance indicators of football goalkeeper. *Apunts Sports Medicine*, 58(219). https://doi.org/10.1016/j.apunsm.2023.100420
- 39) Wahid, W. M. (2023). Pengaruh Variasi Ladder Dril Dalam Peningkatan Kelincahan Keterampilan Menggiring Bola. *Jumper : Jurnal Mahasiswa Pendidikan Olahraga*, *4*(1), 188–197.
- 40) Wang, X., & Guo, Y. (2023). The intelligent football players' motion recognition system based on convolutional neural network and big data. *Heliyon*, *9*(11), e22316. https://doi.org/10.1016/j.heliyon.2023.e22316
- 41) Wibowo, W., & Yulianto, E. (2021). the Identification of the Students ' Dribbling Skill Participating in Gala. *Journal Of Sport Education (JOPE)*, 4, 1–9. https://jope.ejournal.unri.ac.id/index.php/jope/article/view/7928/6814
- 42) Zahed, A., Qurtubi, A., Munir, A., & Wali, C. N. (2022). Efforts to Improve Learning Outcomes of Bullet Repellent Skills in Elementary School Students With Tail Ball Action Modifications. *Jurnal Pendidikan EDUMASPUL*, *6*(2), 2000–2005.