

LITERATURE STUDY ON INCREASING DRIBBLING AGILITY THROUGH BALL FEELING TRAINING METHODS AND LADDER DRILL TRAINING

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ABSTRACT

Football encompasses a range of fundamental strategies that hold significance in the game, such as passing, controlling, shooting, and dribbling. Dribbling is a technique that emphasises the cultivation of fluid and effective ball movement throughout a game, employing agility and speed to adeptly manoeuvre through changes in direction. The objective of this study was to assess the impact of ball-feeling training and ladder drill training on agility abilities in ball dribbling based on the provided background information. The literature review was conducted by searching for published journals using specific keywords relevant to the central study topic. Most literature studies indicate that practicing ball feeling and drill ladder training have a significant effect on agility, leading to an enhancement in an individual's ball dribbling skills. This to a comprehensive analysis of relevant literature, this research demonstrates the significant influence of ball-feeling training and ladder training on players' agility and dribbling ability.

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1. INTRODUCTION

Dribbling the ball is crucial in a soccer game to face an opponent, outsmart the defense, carry out an attack, pass the opponent's defense, control play on the field, and score goals to add points to the opponent's goal (Yuliansyah, 2020). Not everyone has perfect dribbling technique; in theory, the ball should be near the feet, but this is not always the case. When someone is very proficient in the various tactics used in a sport, such as soccer, they may be considered a skilled player in that sport. Even though dribbling the ball seems simple, many soccer players often lose control when doing it. Dribbling the ball requires good skills and is supported by elements of good physical condition such as strength, agility, and eye-foot coordination, which are the driving force for every physical activity (Adil et al., 2018).

A person's physical, physiological, and anatomical conditions that influence ball-dribbling technique. Leg muscle strength, hip and knee joint flexibility, and muscle

elasticity are all physiological factors that influence a person (Chang et al., 2021). A person's height, body length, body size, body width, and body weight are anatomical elements that influence him. Some kind of training assistance is needed to support herding abilities. There are several ways to support ball dribbling training, such as ball feeling exercises and ladder dribbling training, which are training programmes designed to improve dribbling mastery and agility.

Ball feel training is a specific type of skill development in which players use their feet to manipulate, interpret, and guide the feel of the ball. Ball-feeling training is defined as "a subtle feeling in all parts of the body except the hands that influences the level of ball control" (Faozi et al., 2022). Soccer players must have extraordinary ball sensation in order to play the game with perfect technique. A sense of sensitivity or a sense of foot speed when manipulating, receiving, and even kicking the ball are some of the characteristics of the feeling of the ball appearing on the surface. In addition, agility is needed to acquire and improve sports tactics and movement skills, especially those that require a high level of situational adaptation during matches (Latorre et al., 2020).

As part of their training program, soccer players require assistance in the form of ladder drills, which aim to enhance their agility, in addition to ball-feeling exercises that focus on improving ball control (Zago et al., 2016; Padrón-Cabo et al., 2020). The reason is that ball control and agility can be a good and appropriate combination when dribbling the ball. A type of agility training known as "ladder drill" involves using an agility ladder and jumping, running, and changing jumps and movements as you pass them to improve your agility. To increase their agility and speed, athletes use agility ladders to run, jump, and quickly jump on their feet (Kusuma & Kardiawan, 2017; Pratama et al., 2018). Therefore, this exercise is ideal for improving a player's dexterity.

The ladder drill is an exercise to improve speed, dexterity, and general foot coordination (Adhi & Wismanadi, 2018). The main purpose of ladder drills is to teach different leg movement patterns when using agility ladders installed on the ground or floor. Ladder drill training has the ability to change a person's leg muscle strength; the leg muscles contract continuously, turning the actions of jumping and running into noteworthy agility exercises. Researchers used jumping exercises to increase leg muscle strength and agility (Adhi et al., 2017).

This is intended so that players can improve their dexterity, agility, speed, and mastery by using methods called ladder drill training and ball-feeling training. The purpose of the literature review, which can be used as a guide by coaches or players, is to find out to what extent ball-feeling training and ladder drill training improve soccer players' agility and dribbling mastery. This review is based on the provided background information, theory, and observations from various literature studies.

2. METHOD

To address the previously mentioned issues, we employed the literature study method (Ridder, 2014; Gentles et al., 2016). This literature review was conducted by systematically searching and reviewing journals and published publications. Journal and

article searches were carried out based on the terms of each specified variable. The authors use journals and articles sourced from Google Scholar, Researchgate, and Elsevier to select and refine journals and articles that meet the criteria for inclusion in the collection of important literature on article writing, especially in the context of literature reviews. The authors select journals and articles that align with the terms "ball-feeling training" and "ladder drill training," as well as other topics such as dribbling dexterity.

3. RESULTS AND DISCUSSION

Results

Based on the results of a study of various pieces of literature sourced from Google Scholar, Researchgate, and Elsevier, the articles used and suitable for discussion in this research are as follows:

Table 1. literature sourced from Google Scholar, Researchgate, and Elsevier

No	Authors	Year	Title	Conclusion
1.	Asshiddiq & Wahyudi,	2020	Pengaruh Latihan Agility Ladder Drill Terhadap Kelincahan Pemain Futsal Sportifo Fc U-(14-16) Pamekasan. <i>Jurnal Kesehatan Olahraga</i> , 8(3).	As proven by the results of the sig value calculation, agility ladder drill training significantly influences the agility of SPORTIFO FC U-(14-16) Pamekasan futsal players. (2-tailed) $0.000 \leq 0.05$. Then, based on the mean pretest (1189.93) and posttest (1087.27), there was an increase with a difference of 102.667.
2.	Olanda	2020	<i>Pengaruh Variasi Ladder Drill Terhadap Peningkatan Hasil Ability Dribbling Sepakbola SSB Tunas Inti Sungai Penuh.</i> Universitas Jambi.	There is an influence of ladder drill variations on the dribbling ability of SSB Tunas Inti Sungai Full football (tcount 7.8186 > ttable 1.73).
3.	Ro'i	2020	Pengaruh Latihan Variasi Leadder Drill Terhadap Kelincahan Pemain Sepak Bola Siswa Ssb Cobra Surabaya. Universitas PGRI Adi Buana Surabaya.	There is an influence of speed lead drill training on the agility of SSB Cobra Surabaya student players.

No	Authors	Year	Title	Conclusion
4.	Wicaksono	2020	<i>Pengaruh Latihan Ladder Drill Terhadap Kelincahan Menggiring Bola Pemain Sepak Bola. Universitas PGRI Adi Buana Surabaya.</i>	The findings indicate that the ladder drill training model influences ball dribbling agility in students aged 11–12 years at SSB Bligo Putra Sidoarjo. The t value of 0.012, which is greater than 0.05% at a significant level of 5%, confirms this. This is demonstrated by the improvement in the dribbling ability of soccer players using the ladder drill training method.
5.	Febrian & Bakti	2021	Latihan ball feeling dan latihan ladder drill terhadap kelincahan menggiring bola pemain sepakbola. <i>Jurnal Kesehatan Olahraga</i> , 9(03), 381–390.	Shows that there is a significant influence between ball feeling training and ladder drill training on players' agility and ball dribbling abilities.
6.	Pebrima et al.,	2021	Pengaruh latihan ball feeling terhadap kemampuan dribbling pada atlet sekolah sepakbola (SSB). <i>E-SPORT: Jurnal Pendidikan Jasmani, Kesehatan Dan Rekreasi</i> , 1(2), 54–57.	In conclusion, there is an influence of ball feeling training on the dribbling skills of YF13 football school (SSB) athletes in Lubuklinggau city in 2020.
7.	Fauzi	2022	Pengaruh Latihan Ball Feeling Terhadap Kemampuan Menggiring Bola Pada Permainan Futsal Siswa Ekstrakurikuler Sman 19 Kabupaten Tangerang. <i>Jurnal Pendidikan Dasar Setiabudhi</i> , 5(2), 72–76.	The ball-feeling training model significantly influences the ball-dribbling ability in futsal games of extracurricular students at SMAN 19 Tangerang Regency, as evidenced by the pretest and posttest results, which show an average pretest score of 6.91 seconds and a posttest score of 5.06 seconds

No	Authors	Year	Title	Conclusion
				dribbling the ball for 1.85 seconds.
8.	Hermansyah & Wardani	2022	Pengaruh Latihan Ball Feeling Dan Agility Terhadap Keterampilan Menggiring Bola Dalam Permainan Sepak Bola. <i>Journal Sport Science, Health and Tourism of Mandalika (Jontak)</i> , 3(1), 25–32.	There is an influence of ball feeling and agility training on dribbling technical skills.
9.	Muhammad	2022	<i>Perbedaan Pengaruh Metode Latihan Variasi Ladder Drill Dan Ball Feeling Terhadap Keterampilan Dribbling Dalam Permainan Sepak Bola Pada Atlet Ssb Putra Mustika Blora Tahun 2021.</i> Universitas Tunas Pembangunan.	The data analysis yielded the following conclusions: (1) The Ladder Drill and Ball Feeling Variation Training Methods significantly influenced Dribbling Skills in Football Games for SSB Putra Mustika Blora Athletes in 2021. This is proven by the results of the final test calculations for each group, namely that $t_{count} = 1.14$ is smaller than $t_{table} = 2.145$ with a significance level of 5%. The Ladder Drill Variation Method of Training has a better effect on Dribbling Skills in Football Games for the SSB Putra Mustika Blora Athlete in 2021 than the Ball Feeling Training Method.
10.	Puriana & Suryansah	2022	Pengaruh Latihan Ladder Drill Icky Shufle Dan Two Foot Lateral Hoop Terhadap Peningkatan Kelincahan Pemain Sepak Bola Usia Dini. <i>Journal Of Education And Sport Science</i> , 3(2).	Based on the research results, it can be concluded that there is a significant influence on the results of the icky shuffle and two-foot lateral hoop groups on the results of increasing agility.

No	Authors	Year	Title	Conclusion
11.	Susilawai & Esser	2022	Pengaruh Latihan Ball Feeling Terhadap Keterampilan Menggiring Bola SSB Integral Mataram. <i>Journal Sport Science, Health and Tourism of Mandalika (Jontak)</i> , 3(2), 71–78.	There is an influence of ball feeling training on dribbling abilities in soccer games among SSB Integral Mataram students in 2020.
12.	Ansori et al.,	2023	Pengaruh Latihan Ball Feeling Dan Agility Terhadap Keterampilan Menggiring Bola Dalam Permainan Sepak Bola. <i>Journal Sport Science, Health and Tourism of Mandalika (Jontak)</i> , 4(1), 1–8.	There is an influence of ball feeling and agility training on ball dribbling skills in soccer games.
13.	Frimoes et al.,	2023	Pengaruh Latihan Ball Feeling Dan Agility Terhadap Keterampilan Menggiring Bola Dalam Ekstrakurikuler Sepak Bola Di Smp Negeri 8 Lubuklinggau. <i>Silampari Journal Sport</i> , 3(2), 24–34.	The results of this research state that H_0 is accepted and H_1 is rejected based on the data results $t_{count} 7.529 < t_{table} 2.093$ ($t_{count} > t_{table}$), which shows the influence of ball training feeling and agility on the skill of dribbling the ball in extra-football curricular at SMP Negeri 8 Lubuk-linggau.
14.	Hutri	2023	<i>Pengaruh Latihan Ball Feeling terhadap Peningkatan Keterampilan Teknik Menggiring Bola Pemain SSB PSTS Tabing Kota Padang Kelompok Umur 11 Tahun.</i> Universitas Negeri Padang.	There is a difference in the influence of the average score before and after the influence of ball feeling training on improving the ball dribbling ability of SSB PSTS Tabing students aged 11 years.
15.	Juliansyah et al.,	2023	Perbandingan Latihan Zig-zag Run dan Ladder	The conclusion of this research is that ladder drill

No	Authors	Year	Title	Conclusion
			Drill Dalam training is better than zig-zag Meningkatkan run in improving dribbling Keterampilan skills. Dribbling. <i>Jurnal</i> <i>Educatio FKIP UNMA</i> , 9(1), 217–222.	
16.	Nursy	2023	Pengaruh Latihan Ball Speed, Agilty Dan Ball Felling Terhadap Kemampuan Dasar Teknik Dribbling Ssb Putra Kukar Karangtengah Kec. Kaliwungu Kab. Kendal. <i>Seminar</i> <i>Nasional</i> <i>Keindonesiaan</i> <i>(FPIPSKR)</i> , 8(01).	From the findings of this research, speed, agility and ball felling training can improve basic dribbling skills.
17.	Primandha	2023	Pengaruh Latihan Ball Feeling Terhadap Kualitas Control, Dribbling, Dan Passing Pada Pemain Ssb Tersono Usia 14-16 Tahun. <i>Seminar</i> <i>Nasional</i> <i>Keindonesiaan</i> <i>(Fpipskr)</i> , 8(01).	Exercises that involve feeling the ball have an impact on quality control, dribbling and passing in.
18.	Rahman & Annas	2023	Latihan Ladder Dril dan Ball Feeling terhadap Peningkatan Dribbling SSB Galaksi U13. <i>Indonesian</i> <i>Journal for Physical</i> <i>Education and Sport</i> , 4(2), 414–425.	It was determined that the value was $5.56\% < 6.79\%$, indicating that ball-feeling training was more effective than ladder drill training. We suggest that coaches and athletes can use ball-feeling training as a form of training programme to enhance dribbling abilities.
19.	Ramadhan	2023	<i>Pengaruh Latihan</i> <i>Ladder Drill Terhadap</i> <i>Kecepatan Dribbling Di</i> <i>Ssb Assist Soccer School</i>	From the results of data analysis, the ladder drill training method has a significant influence on the

No	Authors	Year	Title	Conclusion
20.	Wahid	2023	<i>Kota Bekasi. Universitas Islam" 45" Bekasi.</i> Pengaruh Variasi Ladder Drill Dalam Peningkatan Kelincahan Keterampilan Menggiring Bola. Jumper: Jurnal Mahasiswa Pendidikan Olahraga, 4(1), 188–197.	dribbling speed of Bekasi City SSB Assist Soccer students. From the results of this research, it can be concluded that the ladder drill variation exercise can improve the ball dribbling agility of Permana Wonomulyo soccer players involving 30 samples.

Discussion

In soccer, dribbling is the skill of occasionally rolling or kicking the ball with the inside or outside of the foot ([Ramadhan, 2023](#)). It entails maintaining tight possession of the ball to outpace the opponent's defence, create goal-scoring opportunities, and increase the number of goals scored. Undoubtedly, this has a significant influence on a player's ability to manipulate the ball, thereby affecting their overall performance. To improve this skill, it is necessary to train certain components, such as agility. Implementing a training program that includes ball-feel exercises is an effective way to improve skills. programme that includes ball-feel exercises. By engaging in these activities, players can improve their ability to control the ball and develop a better understanding of its direction, especially at close range to their feet.

Ball-feeling training emphasises extensive training in direct contact with the ball through exercises such as rolling and manipulating the ball with both feet, dragging, and then pushing the ball, juggling, walking on the ball, and using the outside edge of the foot to push the ball ([Pebrima et al., 2022](#)). Ball-feeling training movements involve agile manipulation of the ball using both feet ([Susilawai & Esser, 2022](#)). This can be achieved by first positioning the ball underneath and then rolling it back and forth by hitting it with the inside of the foot. The aim of these exercises is to emphasize the importance of player precision. In ball-feeling exercises, players apply a pulling force to the ball, followed by a pushing force by applying a pushing force.

According to [Ekatamsi \(1988\)](#) and [Rahmawan \(2019\)](#), dribbling the ball is a method for acclimating to its characteristics. In ball sensation training, players push the ball by stepping on it with the sole of their shoe, then move it forward with the same foot. The aim of this training is to improve a player's ability to perform effectively in high-pressure situations while maintaining control of the ball, even if only relying on the ball-feeling training movements, which involve manoeuvring the ball in a zig-zag pattern using the outside and inside of the foot while simultaneously changing the ball's direction from right to left. The aim of this drill is to improve the player's ball perception,

allowing them to effectively feel the bounce of the ball when dribbling, thereby maintaining constant control.

Apart from training to develop ball feeling, it is also important to improve the connection between the components mentioned above, especially the player's agility. This will allow them to change direction quickly, effectively, and efficiently when dribbling or changing their movements with the ball. Agility allows players to improve the quality of their movements when running or dribbling the ball. This, in turn, facilitates the development of movement qualities, ultimately leading to improved performance during competition. There are various methods to increase agility, one of which is ladder drill training (Wahid, 2023). Ladder drill training involves placing a rectangular ladder, usually made of rope, on the floor or ground. The exercise entails jumping over the steps one by one, from right to left, using one or two feet, and so on. This exercise technique helps improve foot movement and balance without the participant realising it. The goal of this training is to equip players with the skills to execute precise movements that alter their movement direction, thereby enhancing their agility. Brian & Bakti (2021), suggests that the "agility adder drill" exercise known as the out shuffle is effective for increasing agility to increase my agility. Ladder drills enhance agility and speed of movement, providing several benefits. According to research (Asshiddiqi & Wahyudi, 2020), agility ladder drill training has a significant influence on the agility of SPORTIFO FC U-(14–16) Pamekasan futsal players, as demonstrated by the results of the sig value calculation. ults of the sig value cal the results of the mean pretest (1189.93) and posttest (1087.27) showed an increase, with a difference of 102.667. Therefore, we can conclude that incorporating stair training into the training programme will greatly benefit players who aim to enhance their agility and speed of movement. Players who aim to enhance their agility and speed of movement will greatly benefit from incorporating stair training into the training program. By integrating ball-feel drills with these drills, individual proficiency in agility and ball control will be enhanced, thereby improving dribbling skills.

Driller drill exercises emphasise rapid leg movements and reactions by sequentially jumping or traversing steps using one or two legs (Saputra, n.d.). This exercise is directly related to the implementation of alternating leg movements while moving forward, backward, and even jumping step by step. Stool step. This exercise effectively strengthens the leg muscles by using both legs in fast and coordinated movements. In ball-feeling training, each player prioritises understanding the ball's movement or reflection (Febrian & Bakti, 2021). During the drills, players are instructed to prioritise their ball possession skills in different scenarios and minimise ball bounce so that the ball remains easily in their hands while controlling it.

Based on research findings (Fauzi, 2022), the ball-feeling training model significantly influences the ball-dribbling ability in futsal games of extracurricular students at SMAN 19 Tangerang Regency. This is demonstrated by the pretest and posttest results, which show an average pretest score of 6.91 seconds and a posttest score of 5.06 seconds. After implementing the action, the dribbling ability increased by 1.85 seconds. Additionally, research conducted by Pebrima et al. in 2021 revealed that ball-

feeling training had an impact on the dribbling skills of athletes from YF13 Lubuklinggau City Football School (SSB) in 2020. Without a doubt, ball-feeling training can be considered useful for skill improvement due to the significant progress in the development of ball-dribbling abilities. Researchers [Hermansyah and Wardani \(2022\)](#) conducted a study that demonstrated the impact of ball-feeling training on players' dribbling skills. The conclusion is that ball-feeling and agility training influence dribbling technical skills. The impact of agility training on dribbling technical skills is substantial. A player's ball-dribbling ability is significantly influenced by the ball-feeling training method. The ball-feeling training method greatly impacts a player's ability to dribble the ball.

According to research ([Susilawai & Esser, 2022](#)), ball-feeling training will have an influence on dribbling abilities in soccer games among SSB Integral Mataram students in 2020. These findings demonstrate that ball-feeling training has a significant influence on dribbling ability. The study by [Frimoes et al. \(2023\)](#), entitled "The Effect of Ball Feeling and Agility Training on Ball Dribbling Skills in Extracurricular Football at SMP Negeri 8 Lubuklinggau," found that the t-count was 7.529 and the t-table was 2.093 (t-count > t-table). This shows that training ball feel and agility influenced ball dribbling skills in extracurricular football at SMP Negeri 8 Lubukling. Furthermore, Hutri's 2023 research concluded that there was a difference in the average score before and after ball-feeling training, which improved the ball-dribbling ability of 11-year-old SSB PSTS Tabing students. Ball-feeling training has been shown to improve football players' dribbling abilities.

Apart from that, research conducted by [Puriana and Suryansah \(2022\)](#) with the title "The Effect of Ladder Drill Icky Shuffle and Two Foot Lateral Hoop Training on Increasing the Agility of Early Age Soccer Players" found that there was a significant influence on the results of the icky shuffle and two-foot groups. Lateral hooping results in increased agility. The findings show that sprint training using the ladder drill method has a greater impact on speed. Another study by [Julisyah et al. \(2023\)](#), titled "Comparison of Zigzag Run and Ladder Drill Exercises in Improving Dribbling Skills," revealed that using various ladder drill training techniques led to increased agility and improved reaction speed compared to training using the zigzag run method. This indicates that the athletes were trained using various agility training methods, including ladder drill training. It can be concluded that ladder drill training is a feasible and effective way to improve athletes' agility.

According to [Ansori et al. \(2023\)](#), increasing a player's agility leads to an increase in dribbling skills, thereby increasing overall dribbling ability. The results of this study are consistent with research conducted by [Wicaksono \(2020\)](#), which states that having strong agility will make it easier to master fundamental football methods. This is because players with a high level of dexterity are more likely to execute basic soccer tactics effectively. Furthermore, having excellent agility will help reduce injuries. In soccer, agility is very important for players to maintain body balance and prevent easy falls. According to [Wahid \(2023\)](#), increasing agility is expected to improve athletes' qualities and skills in handling the ball on the field. According to [Satemes \(2023\)](#), soccer

players with good agility enjoy various advantages, including ease of play. They can execute complex maneuvers and reinforce the methodology they use, particularly dribbling tactics. Through comprehensive analysis of articles and journals, it is proven that ball-feeling training and ladder drill training provide different results. However, both activities significantly improve dribbling ability.

4. CONCLUSION

The findings from this literature review indicate that ball-feeling training and ladder drill training have the same effect on improving skills and agility. Apart from that, it has a positive impact on improving the player's physiology, thereby increasing their dribbling ability. As a result, this training method can be used as an additional program to help develop professional football players.

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