

Effect of L drill & U drill on agility and speed on football players

¹Basit Maqbool ²Dr. Surjeet Singh & ³Fancy Ashiq

¹ & ³ Research Scholars Directorate of physical Education and Sports

² Assistant Professor, Directorate of physical Education and Sports

Abstract

Football is the most popular sport in the world. Millions of people regularly go to football stadiums to follow their favourite teams, while billions more watch the game on television. It is the sports that demand its players take on a lot of responsibility for what happens in the game, it also demand high level of physical fitness especially speed and agility. The purpose of study was to check the Effect of L drill & U drill on agility and speed on football players for this Thirty (30) male football players from department of physical education university of Kashmir India were selected as subjects. The ages of subjects ranged from 20 to 25 years. The subjects were divided into three equal groups of 10 subjects each. Group I acted as Experimental Group I (L drill Training), Group II acted as Experimental Group II (U drill) and Group III acted as Control Group. Illinois Agility Test (Getchell, 1979) was applied to measure Agility while as 40 Yard Dash was applied for measure speed before and after completion of six week training to get pre test score and post training data. The duration, intensity of two different training was same. Results The result reveals both L drill and U drill had positive effect on the speed and agility, moreover U drill training was significantly better than L drill training in both speed and agility.

Key words:- U drill, L drill, football players, Kashmir

All over the globe, people are attached to football in deep and passionate cultural way. Soccer or football, as it Called in most part of the world. There is just something about soccer, which over the years has earned nick names including the beautiful game, the simplest game, the world's game and the people's game. (Roberts, 2010).Football is played at a professional level all over the world. A very large number of people also play football at an amateur level. (Vijay Asthana, 2009). Football is a popular, complex strategical game of physical and mental challenges. At least 200 million licensed players participate in football and 20 million football games are arranged each year in the world. Football is a team game the object of which is to advance an inflated round ball towards the opponents' goal posts by kicking, passing, dribbling, and playing with any part of the body except arms and hands. (Witvrouw, 2003)Playing any sports offers the opportunity for players to develop qualities that will help them as they strive for excellence in their livesThe contemporary history of football spans more than 100 years. It all began In 1863 in England. When rugby football and association football branched off on Their different courses and the world's first football association were founded (The Football Association). Both forms of

football stemmed from a common root and both have a long and intricately branched ancestral tree. The spread of football outside Great Britain mainly due to the Britain influence abroad, started slow, but it soon gathered momentum and spread rapidly to all parts of the world. (Subhash K.Goyal, 2009) In 1863 a group of players and managers from English public schools got together in London and wrote a set of rules for the sports and they called it football, which is how most of the world refers to it.

Federation International de Football Association (FIFA) was founded in 1904 and based in Zurich. Federation International de Football Association (FIFA) is the International governing body of soccer. Federation International de Football Association (FIFA) administers and markets all worldwide soccer competitions including the world cup and oversees all changes to the rules of the game. The international Football community grew steadily, although it sometime met with obstacles and setbacks. In 1912 twenty one national associations were already affiliated to the Federation International de Football Association (FIFA). By 1925 the number had increased to thirty six. The Federation International de Football Association boasts of more countries among its membership than the United Nations. No other sports have so many passionate players and fans. (Roberts, 2010). Despite football being a highly popular game in India, major victories at the international stage are few and far between. While the national team languishes at the rock bottom of the rankings, the all India football federation has done precious little to raise the standard of the game of India. (Subhash K, Goyal, 2009).

Although it is recognized that pre planned movements are important to team sport performance, effective agility movements are also commonly executed in response to a sport-specific stimulus (e.g., the offensive movements of an attacking player). It has been established that successful team sport performance depends on well-developed physical qualities (e.g., linear sprinting speed, change of direction Speed) (Gabbett et al. 2009). However, higher-skilled athletes in team sports have also consistently shown perceptual skills that are superior to those of their Less-skilled counterparts (Perceptual–Cognitive and Perceptual–Motor Contributions to Elite Performance). Despite the wealth of evidence demonstrating differences between experts and novices in sport-specific anticipation and decision-making tasks (see Williams et al. 2006 for review), the Majority of agility testing protocols have used tests of preplanned change of direction speed. A limitation of tests that measure change of direction speed is that they fail to assess the perceptual components of agility. shows a multifactorial model of physical and perceptual qualities influencing agility performance. Although the physical and biomechanical qualities are important to enhance change of direction speed, perceptual qualities such as visual Scanning, anticipation, situational knowledge, and pattern recognition are also critical factors discriminating the agility performances of higher- and lesser skilled Team sport athletes (Young et al. 2002).

The purpose of the study was to find out the effect of L drill and U drill on the agility and speed variables among football players. To achieve the purpose of the present study, Thirty male football players from department of physical education university of Kashmir J&k, India were selected as subjects (randomly) the age of subject ranged from 20 to 25 years. The subjects were

divided into three equal groups of 10 subjects each. Group I acted as Experimental Group I (L drill Training), Group II acted as Experimental Group II (U drill) and Group III acted as Control Group. The requirement of the experiment procedures, testing as well as exercise schedule was explained to the subjects so as to get full co-operation of the effort required on their part and prior to the administration of the study. Before to start training Illinois Agility Test (Getchell, 1979) and 40 Yard Dash test were applied to measure Agility and speed of the subjects to get pre test score

Training Programme

During the training period the experimental groups underwent their Respective training programme in addition to their daily regular activities. Experimental groups namely L drill training, U drill training underwent their respective training as per schedule that was three days in a week the training was scheduled on alternative days and continued for six weeks. The duration of experimental training were kept for 30 minutes with maximal intensity. The training starts was provided in morning session only. All the subjects involved in this study were carefully monitored throughout the training programme and 90% of attendance.

Description of the drills

L – Drill or 3 Cone Drill L-drill agility training is a popular exercise used in sports and fitness training to improve agility, quickness and over all athletic performance it is also know as 3 cone drill. L-drill is commonly used in soccer, basketball and other sports that require rapid changes in direction and lateral movement. The L-drill also believed to have been developed by American football association and applied upon NFL national football players. The total distance of the L-Drill is 30 meter. The total duration of the L-Drill including warm-up, cool down should be completed in 20 to 45 minutes. Total sets should be 3-5. Total reps should be 3-5. Rest between reps should be 30 seconds. Rest between sets should be 2 minutes

U-drill Like L drill this drill ia also used to develop spped and agility in football players. Like in L drill The total distance of the U-Drill is 30 meter. The total duration of the U-Drill including warm up, cool down should be completed in 30 to 45min. Total sets should be 3-4. Total reps should be 3-5. Rest between reps should be 1minute. Rest between sets should be 2 minute.

Illinois Agility Test (IAT) was applied to measure Agility test. The Illinois Agility Test (Getchell, 1979) is a commonly used test of agility in sports, and as such there are well-established norms available. **Speed test 40 Yard Dash** Sprint or speed tests can be performed over varying distances, depending on the factors being tested and the relevance to the sport. The 40 Yard (36.6 meters)

Descriptive and inferential statistics was applied in order to find out the effect of L drill and U drill training of football players. To find the mean difference of pre and post treatment ANOVA and post hoc was applied. The data were compiled and analysed using the Microsoft Excel for window computer software and SSPS. The collected data on selected criterion variables have been analyzed and presented in this chapter. The purpose of the study was to find out the effect of L drill and U drill on the selected physical fitness variables among soccer players.

Table 4.7 Analysis of variance results for pre-post speed

	Pre		Post		Overall		p-value
	Mean	SD	Mean	SD	Mean	SD	
	L drill Group	5.6700	± .20955*	5.5060			
U drill Group	5.7890	± .36146*	5.1800	± .22632**	5.4845	± .42866*	.009
Control group	6.2380	± .34415	6.5180	± .19171	6.3780	± .30683	.001

Table indicates that the mean value during pre test (speed) for control group was 6.2380 with SD ±.34415 while as in L drill group mean was 5.6700 with SD ±.20955 and the U drill group mean was 5.7890 with SD ± .36146. When ANOVA one way was applied to check significant difference at 0.05 level

After pre test, it was observed that the mean value during post test for controlled group was 6.5180 with SD ± .19171 while as in L drill group mean was 5.5060 with SD ±.41876 and the U drill group mean was 5.1800 with SD ±.22632. When post hoc test was applied significant difference was observed between the experimental groups and the control group. Moreover, significant difference was found between the L drill and U drill with U drill proving to be more effective when it was to enhance speed among the subjects.

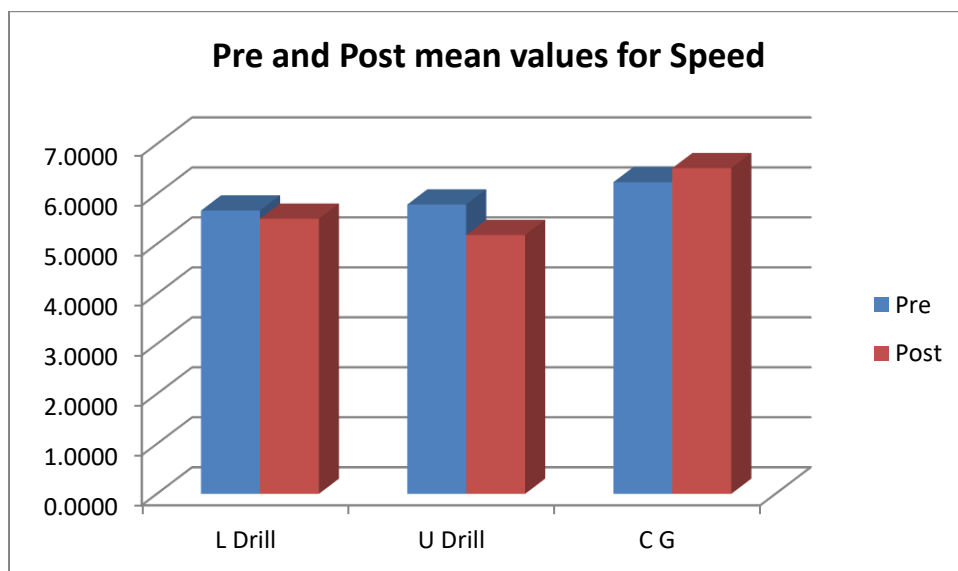


Figure 4.1: Graphical representation of speed in pre and post test.

Table 2: Analysis of variance results for pre-post agility

	Pre		Post		Overall		p-value
	Mean	SD	Mean	SD	Mean	SD	
L Drill Group	18.9010	± .56816*	18.1700	± .56184**	18.5355	± .66563*	.027
U drill Group	18.8190	± .61647*	17.4260	± .57853**	18.1225	± .92152*	.013
Control group	19.6140	± .54821	19.8750	± .43285	19.7445	± .49904	.027

Table 2 indicates that the mean value during pre test (agility) for control group was 19.6140 with SD ±.54821 while as in L drill group mean was 18.9010 with SD ±.56816 and the U drill group mean was 18.8190 with SD ±.61647. After post test, it was observed that the mean value for post test for controlled group was 19.8750 with SD ±.43285 while as in L drill group mean was 18.1700 with SD ±.56184 and the U drill group mean was 17.4260 with SD ±.57853. When post hoc test was applied significant difference was observed between the experimental groups and the control group. Moreover, significant difference was found between the L drill and U drill with U drill proving to be more effective when it was to enhance agility among the subjects

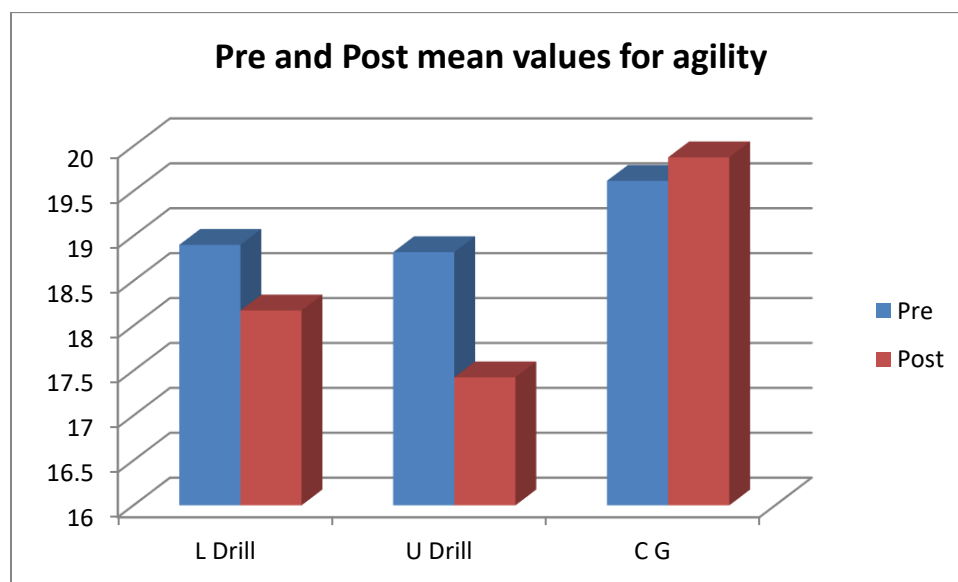


Figure 4.2: Graphical representation of agility in pre and post test.

Results:- the result of the study reveals that the effect of L drill and U drill on the speed and agility of the football players were significantly improved. In improving speed U drill training are significantly better than L drill training in improving agility. U drill training is significantly better than L drill speed also Nawan,(2022) had found similar results where 3 days a week for 6 week of shuttle run and three corner drill training are both significantly effective in improving the agility. Robin KV and Dr. YC Louis Raj (2018) also found similar result in their study Kusnanik and Rattery (2016) Chandrakumar and Ramesh (2015) the ladder drill and SAQ training for 8 weeks 3 days in week also found similar result.

Conclusion:- it was found that L drill and U drill has resulted in significant positive improvement in the selected physical fitness variables namely speed and agility. The control group soccer players did not show significant Improvement in any of selected variables speed and agility. Further, the present study has made a factual attempt that 6-weeks L drill and U drill training improved the performance of university men football players the experimental group soccer players showed significant improvement on selected physical variables such as agility and speed.

References

- Alviana, S., I., Mintarto, E., Hariyanto, A. (2020). The Effect of Exercise with Ladder Drill Slaloms and Carioca on Speed and Agility. *International Journal for Educational and Vocational Studies*, 2 (1), 103-108. DOI: <https://doi.org/10.29103/ijevs.v2i1.2039>
- Azmi K, Kusnanik NW. Effect of Exercise Program Speed, Agility, and Quickness (SAQ) in Improving Speed, Agility, and Acceleration. *Journal of Physics: Conf. Series* 2018;947:012043
- Bal, B. S., Kaur, P. J. and Singh, D. (2011). Effects of a short term plyometric training program of agility in young basketball players. *Brazilian Journal of Biomotricity*, 5(4): 271-78.
- Bompa, T. O. (2015). *Periodization training for sport*. Human Kinetics: United State of America.
- Brechue, WF, Mayhew, JL, and Piper, FC. Characteristics of sprint performance in college football players. *J Strength Cond Res* 24:1169–1178, 2010.
- Brechue, WF, Mayhew, JL, Piper, FC, and Houser, JJ. Comparison between hand- and electronic-timing of sprint performance in college football players. *Mo J Health Phys Educ Recreation Dance* 18:50–58, 2008.

- Buttifant, D., Graham, K., & Cross, K. (1999). Agility and speed of soccer players are two different performance parameters. *Journal of Sports Science*, 17, 809-816.
- Chaouachi, A, Manzi, V, Chaalali, A, Wong, DP, Chamari, K, and Castagna, C. Determinants analysis of change-of-direction ability in elite soccer players. *J Strength Cond Res* 26: 2667–2676, 2012.
- Dhanaraj S. Effects of Ladder Training on Selected Motor Fitness Variables among Handball Players. *International Journal of Scientific Research*. 2014; 3(4):406-407.
- Getchell B. *Physical Fitness: A Way of Life*, 2nd ed. New York: John Wiley and Sons, Inc., 1979.
- Haalali A, Rouissi M, and Chtara M et al. *Agility training in young elite soccer players: promising results compared to change of direction drills*. *Bio Sport*. 2016; 33(4):345–351.
- Holding RC, Meir RA, Shi Z. Responding to "change" in the sporting environment: a brief review of recent agility testing and training research. *Journal of Australian Strength & Conditioning*. 2013; 21(3):21-29.
- Holmberg, P. H. (2009). Agility training for experienced athletes: A dynamical systems approach. *Strength and Conditioning Journal*, 31(3): 73-78.
- J. Bryan Mann, 1, 2 pat a. Ivey,1 jerry l. Mayhew,3,4 Richard m. Schumacher,3and William f.
- Brechue (2016) *relationship between agility tests and short sprints: reliability and smallest worthwhile difference in national collegiate athletic association division-i football players*
- Johnson, P. and Bujjibabu, M. (2012). Effect of plyometric and speed agility and quickness (saq) on speed and agility of male football players. *Asian Journal of Physical Education and Computer Science in Sport*, 7(1): 26-30.
- Jovanovic Mario. (2011). Effects Of Speed, Agility, Quickness Training Method on Power Performance In Elite Soccer Players. *Journal of Strength and Conditioning Research*.
- Mayew, J., Piper, F., Schwegler, T.M., & Ball T.E. (1989). Contributions of speed, agility and body composition to anaerobic power measurements in college football players. *Journal of Applied Sport Science Research*, 3, 101–106.

Milanović, Z., Sporiš, G., Trajković, N., James, N., & Šamija, K. (2013). Effects of a 12 Week SAQ Training Programme on Agility with and without the Ball among Young Soccer Players. *Journal of Sports Science and Medicine*. 12(1), 97-103.

Nasrulloh, A., Sumaryanto, S., Prasetyo, Y., Sulistiyono, S., & Yuniana, R. (2021). Comparison of Physical Condition Profiles of Elite and Non-Elite Youth Football Players. *MEDIKORA*, 20(1), 73–83. <https://doi.org/10.21831/MEDIKORA.V20I1.39547>

Primasoni, N., Prakosa, D. M., & Anugrah, T. (2022). The effects of shuttle run and three corner drill on the agility of soccer players in soccer academy. *Jurnal Keolahragaan*, 10(2), 175-182.

Rajković A, Vučetić V, Bašić D. Influence of specific speed, agility, and quickness training (SAQ) on speed and explosiveness of football players. *Sport Science* 2014; 7(1):48.

Robin KV and Dr. YC Louis Raj (2018) *Impact of ladder training on the agility performance of footballers*

Serpell, B.G., Ford, M., and Young, W.B. 2010. The development of a new test of agility for rugby league. *Journal of Strength and Conditioning Research* 24(12):3270-3277.

Sheppard, J. M., & Young. B. (2006). Agility Literature Review: Classifications, Training and Testing. *Journal of Sports Sciences*. 24(9), 919-932.

Sheppard, J. M., Barker, M., and Gabbett, T. 2008. Training agility in elite rugby players: a case study. *Journal of Australian Strength and Conditioning* 16(3):15-19.

Sheppard, J. M., Young, W.B. Doyle, T.L., Sheppard, T., and Newton, R.U. 2006. An evaluation of a new test of reactive agility and its relationship to sprint speed and change of direction speed. *Journal of Science and Medicine in Sport* 9:342-349.

Šimonek, J., & Horička, P. (2020). *Agility in Sport*. Cambridge Scholars Publishing.

Sporis, G., Jukic, I., Milanovic, L., & Vucetic, V. (2010). Reliability and factorial validity of agility tests for soccer players. *The Journal of Strength & Conditioning Research*, 24(3), 679-686.

Trevor p. Short, 1 Justus d. Ortega, 2 Tina m. Manos, 1 Andrew j. Petersen, 3 and Young Sub Kwon1 (2022) *the Effects of Ladder Training on Sprint and Change of Direction Performance*

Young, W.B.; Dawson, B.; Henry, G.J. Agility and Change-of-Direction Speed are Independent Skills: Implications for Training for Agility in Invasion Sports. *Int. J. Sports Sci. Coach*. 2015, 10, 159–169.