

# The Effects of Agility Training to Football Players of Secondary Schools in Ranau

Zulakbal Bin Abd Karim, Marfua'a Eva Farhana Parais &  
Ramesh Ram Ramalu

Sultan Idris Education University, Malaysia

Email: zulakbal@fsskj.upsi.edu.my

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## Abstract

The purpose of this study is to identify the effects of agility training to football players of secondary schools in Ranau. A total of 20 football players were chosen to participate in this study using non-random sampling method. The researcher adopted the experimental design that uses a comparative design between the effects before and after training in 6 weeks. The football players were divided into two groups, the control group and treatment group. The agility level was assessed through Short Dribbling Test. The obtained data were analysed using Independent T-test by SPSS version 23.0. The findings show that there is significant difference in the agility level of the control group and experimental group players in the post-test. In overall, the agility training had a positive impact on the agility performance of the players. Developing agility in football training enhancing the skills to stop on a dime, change direction and keep moving in one fluid motion.

**Keywords:** Training, Players, Secondary Schools, Ranau.

## Introduction

Football is considered as the number one sport in Malaysia and rest of the world based on television audiences, compared to other sporting events viewed (Karim & Nadzalan, 2017; Karim, 2016). Football is considered a high demand game as the players are subjected to numerous actions that require overall strength and power, speed, agility, balance, stability, flexibility and adequate endurance level, thus making the conditioning of players a complex process (Jovanovic, Sporis, Omrcen & Fiorentini, 2011). According to Paul, Gabbett & Nassis (2016), team sports are characterized as being intermittent in nature, whereby players are required to frequently transition between brief bouts of high-intensity running and long periods of low-intensity activity. In addition, players need to perform movements such as tackling, blocking, jumping and integrate directional changes and other technical skills. Agility is one of the important features of team football players. There is a growing interest in the factors that influence agility performance and appropriate test protocols and strategies to evaluate and improve this quality (Salmela, 2018). Agility is the ability of the player to execute fast whole-body motion with velocity or direction change in response to a stimulus (Benvenuti, Minganti, Condello, Capranica and Tessitore, (2010). A new concept of agility in response to a stimulus is proposed as a rapid whole-body movement with velocity or direction

change. Agility has relationships with trainable physical attributes such as strength, power and technique, and cognitive components such as visual scanning techniques, speed and anticipation of visual scanning (Shahidi, Mahmoudlu, Panah Kandi and Lotfi, (2012).

Although more research is emerging on the role of agility in sport performance and agility training, study on improving agility in adolescent athletes is still minimal (Chaali, Rouissi, Chtara, Owen, Bragazzi, Moalla and Chamari, 2016). For decades agility and change of direction were thought to be the same skill, and agility was not included in developers of team athlete's development models (Lloyd et al., 2013; Chaali et al., 2016).

Agility is important for combat sports such as boxing, court sports such as tennis and team sports such as volleyball or baseball. However, this study will focus on the "invasion" or "territorial" sports category (Warren, Brian & Greg, 2015). Agility are the combination of strength, coordination, stamina, speed and versatility and have direct impacts on player abilities and field performance. Thus, being aware of the complexity of agility by conducting comparative experiments, the purpose of this study was to determine whether agility and coordination of players training has crucial effects on improving football skills.

## **Methods**

### **Study Design**

This study adopted quantitative approach. According to Nana (2005), Chua (2006) and Fraenkel (2007), quantitative research refers to study that emphasizes on objective phenomena and is controlled through data collection and analysis. It involves the measurement of study variables using scientific and experimental tools. In quantitative studies, statistical tests are used to explain or find relationships between variables.

This study applied an experimental design that uses a comparative design of the effects of before and after training in a given time period. The data obtained were used to explain the phenomenon studied in terms of the effect of agility performance after six weeks of training in a timely and accurate manner. In this study, data were collected during and after the participant performed the activities provided by the researchers.

### **Sampling**

For the study sample, the researcher chose to perform non-random sampling. In this study, the researchers have selected 20 male football players aged 13 and above to be the subject of study at one of the schools at Ranau district.

### **Study Procedures**

The procedure is the steps taken before, after and during the study. First, the researchers applied for permission from the District Education Office to conduct research at the school. Once the application has been approved, the researchers made an appointment with the football players to obtain their consent for this study for a period of six months. Then, the researcher stated and informed the date, time and place of the study. The researchers also explained the preparation of players such as proper attires and health conditions. After that, the researchers carried out six weeks of training to the control and experimental groups followed by the tests. On the test day, the players were required to take Short Dribbling Test to evaluate the impact of agility training on player's performance. The average rest time is 5 minutes per players. The researcher gave a short research briefing to the players before the

test and performed a demonstration to provide a clear picture of the action. Last but not least, the researcher collected the data required.

### Test Procedures

**Short Dribbling Test:** The tool needed in the administration of the test includes football, stopwatch, measurement tape, whistle, marker (cone), information form and score form. To begin, markers are placed in a straight line. The participants start with one foot on the starting line and the other foot behind the line. When the researcher shouts "Three, Two, One, Go!" the participants begin to dribble the ball between the markers. If the cone accidentally drops, the count is considered invalid and the participants will have to repeat the test. The two best readings are recorded during the pre-test and post-test.

### Descriptive Statistics

Table 4.1 shows the descriptive analysis of all the subjects involved in this study. There were 20 secondary school students who play football actively participated in this study for 6 weeks, 3 sessions per week. The subjects were divided into two groups, the control group (N = 10), and the treatment group (N = 10). The mean values of age, height and weight for both groups (N = 20) were identified as age (mean = 13 t), height (mean = 1.37 m), and weight (mean = 36 kg).

Table 4.1:

*Demographic Data*

	N	Minimum	Maximum	Mean	SD
<b>Age</b>	20	13	15	2.0500	0.82558
<b>Height</b>	20	1.37	1.71 m	1.5245	0.11274
<b>Weight</b>	20	36.00	70.00	47.8000	10.78303

### Comparison of Pre-Test and Post-Test in Short Dribbling Test between Control Group and Treatment Group

Table 4.2 shows the analysis of t-test between pre and post-test for the Short Dribbling Test. The results showed that  $t = 2.702$ ,  $p = 0.409$ ,  $p < 0.05$  value is not significant for the pre-test. The test results indicated that there is a significant difference in the mean scores of Short Dribbling Test between the control group ( $M = 22.66$ ,  $SD = 3.23$ ) and the treatment group ( $M = 19.24$ ,  $SD = 2.36$ ) during the pre-test.

Meanwhile, for the post-test, the results showed that  $t = 4.024$ ,  $p = 0.544$ ,  $p < 0.05$  is not significant. The test results showed that there is a significant difference in mean scores of Short Dribbling Test between the control group ( $M = 19.32$ ,  $SD = 1.19$ ) and the treatment group ( $M = 17.02$ ,  $SD = 1.36$ ) during the post-test.

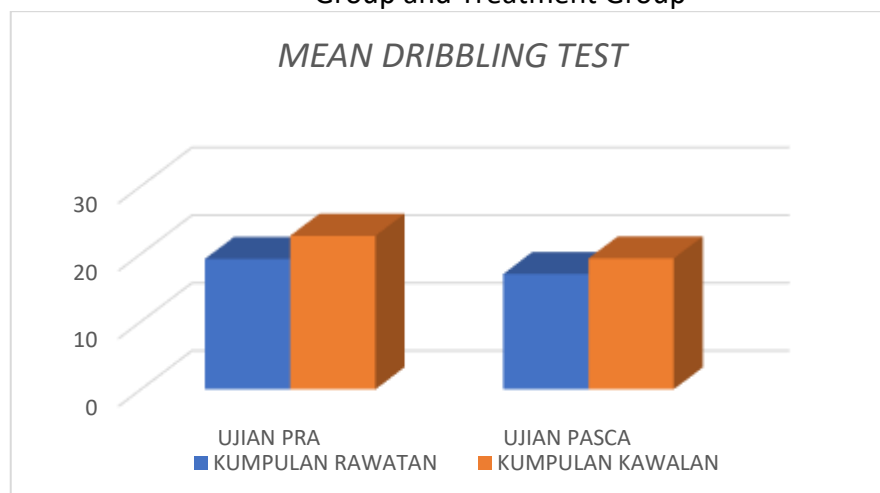
Table 4.2:

*Comparison of Pre and Post-Test in Short Dribbling Test between Control Group and Treatment Group*

	Mean $\pm$ SD		<i>t</i>	<i>p</i>
	Pre-test	Post-test		
<b>Experimental Group</b>	19.24 $\pm$ 2.36	17.02 $\pm$ 1.36	3.674	0.005
<b>Control Group</b>	22.66 $\pm$ 3.23	19.32 $\pm$ 1.19	3.654	0.005
<b><i>t</i></b>	2.702	4.024		
<b><i>p</i></b>	0.409	0.544		

***Differences in Pre and Post-Test in Short Dribbling Test between Control Group and Treatment Group***

Figure 4.1: Differences in Pre and Post-Test in Short Dribbling Test between Control Group and Treatment Group



Based on Figure 4.1, the test results indicate that the mean of pre-test for the treatment group is 19.24 and the control group is 22.66. This indicates that there is a slight difference in mean scores for the pre-test where the treatment group is lower than the control group. There is a mean score decrease in the post-test for both groups in which the treatment group decreases to 17.02 and the control group decreases to 19.32.

### Result

In overall, the mean score obtained showed improvement in the subjects' performance in both groups after 6 weeks of study. Based on the results obtained, the 6-weeks training did not show any improvement in subjects where mean values for both groups decreased and there was no significant difference between the two groups. In other words, the training conducted may not be appropriate and systematic for the subjects or there are external constraints that influence the effectiveness of the training.

### Discussion

Based on the results obtained, there is a slight difference in the test of football performance at one of the secondary schools in Ranau.

The difference can be seen in Figure 4.1, which is the mean of the agility test. During the pre-test, the treatment group had higher mean value compared to the control group. The mean value of the treatment group was ( $M = 19.24$ ) while the control group was ( $M = 22.66$ ).

Whereas for the post-test, the decrease can be seen in Figure 4.1, for the treatment group with mean value ( $M = 17.02$ ) and control group with mean value ( $M = 19.32$ ). The visible difference range is 2.36 while the control group is only 3.23.

Therefore, the study is not in line with the studies conducted by other researchers in which there are some significant differences. Based on the results achieved, it is important for every coach to emphasize agility training on the football player, regardless male or female. Systematic agility training is necessary to enhance the performance of the player and to achieve success in a competition.

The results of this study may not reflect the true state of the football players' performance as there are many variables that need to be taken into consideration when running the test. These include emotions, health, individual fitness level and so on. Before the players are given this agility test, the coach also needs to make sure that the players have been given other exercises such as strength, speed and muscular endurance training in order to achieve the best performance.

### Conclusion

The researcher of this study found that the mean score obtained showed improvement in the subjects' performance in both groups after 6 weeks of training. The major findings of the current investigation highlight that systematic agility training induces performance improvements in football players at secondary schools. Indeed, following the 6 weeks of comprehensive training this systematic agility training improved significantly. Data from this study is consistent with previous studies showing a substantial performance change through systematic agility test training, suggesting a potential transition of preparation between certain physical qualities.

Agility training systematically conducted is recommended to football coaches of every level and context to enhance the performance of the player and to achieve success in a competition. According to Salmela (2018), for taking the athletic performance to the next level, speed and agility are essential regardless of the sport you play. Not only does agility improve athletic performance, it can also improve our everyday movement. In line with Shahidi et al. (2012), whether to build explosive power, increase speed, improve recovery times or just want to improve equilibrium, agility training is essential to maintain athletic performance either in team sports or individual sports. Therefore, based on the results achieved, it is important for every coach to emphasize agility training in their training plan for their players.

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