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## The impact of an eight-week speed, agility and quickness (SAQ) training program on the attacking ability of midfield football players

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### Abstract

This present study attempted to discover the effect of the Speed, Agility and quickness (SAQ training) program on midfield soccer players' attacking skills. Twelve Rathnapura district male soccer players (age- under 14) were selected through simple random sampling technique and divided into two groups (6- treatment group and -control group). The Johnson soccer test was introduced before and after the 8-week SAQ training program. The paired sample t- test was used to identify the effect of the intervention using SPSS version 21. The result show, that there was a significant difference between pre-test and post-test in treatment group ( $p= 0.007$ ) and no significant difference were observed in control group ( $p=0.141$ ) at 0.05 level of significant. According to the results, there was enough evidence to conclude that, SAQ training program had an impact on midfield soccer players' attacking ability. The researchers suggested to include SAQ training to develop attacking skill of soccer players.

**Keywords:** SAQ training, soccer, attacking skill

### 1. Introduction

Many people play and enjoy soccer all around the world. Even while modern football as we know it today originated in Britain, it was undoubtedly played for a very long period in many other countries before that. Soccer is a game that requires intense, continuous, and exhilarating action, and as a result, it attracts to young people all over the world. Although the game requires just basic, common abilities, participating players find it to be immensely energizing and rewarding. (Kumar, 2018) <sup>[4]</sup> Today's soccer players are put through a number of movements that need total strength and power, making it a very demanding sport (Milanović *et al.*, 2014) <sup>[7]</sup>. Players must be well conditioned to have the necessary levels of endurance, productivity, speed, agility, balance, stability, and flexibility. (Ovanovic *et al.*, 2011) <sup>[9]</sup>. Implying that player physical conditioning is a difficult procedure. In a soccer match, players travel around 10 km overall, with sprints occurring every 90 seconds (11% of total activity), lasting typically 2 to 4 seconds, and covering a distance of 15 m.(Milanović *et al.*, 2013) <sup>[6]</sup>. Soccer training has mostly adopted the SAQ (speed, agility, and quickness) system.(Milanovic Zoran; Trajkovic Nebojsa; Joksimovic Aleksandar; Sporis Goran; Milanović Luka; James Nic.; 2011) <sup>[8]</sup> The name S.A.Q. is formed from the first letters of the tentative acronym for speed, agility, and quickness. When one hears the word speed, they often think of running events, however speed affects many other body parts and differs from one component to another.(Kumar, 2018) <sup>[4]</sup> Training all the elements of soccer should benefit from speed, agility, and quickness (SAQ). Speed of movement, acceleration, and response time are all examples of quickness. Improved explosive movements are the main goal of a normal SAQ session. Despite the fact that there are strong relationships between acceleration, top speed, and agility, each of these skills is unique and needs to be taught independently. (Mcdermott, 2016) <sup>[5]</sup> When it comes to soccer players, agility is crucial. In addition to using, it to outmaneuver the adversary, it also aids in reducing injuries. Muscle tears and joint injuries may both be avoided with the right balance of muscle activation and inhibition. Soccer players rarely play at their

top pace, but the early starting phase and the acceleration phase have a larger importance in a performance. (Ovanovic *et al.*, 2011) [9] Through a variety of soccer-specific workouts, the SAQ training system combines speed, agility, and quickness. Exercises are all carried out using the best biomechanical movement structures, which results in energy and time savings. (Toppo & Tirkey, 2014) [11].

A training program called Speed, Agility, and Quickness (SAQ) aims to improve motor abilities and body movement control through growing the neuromuscular system. It seeks to enhance athletes' capacity for multidirectional movement and explosive power by retraining the neuromuscular system to make it more effective. (Surawan *et al.*, 2022) [10] Training in SAQ can help athletes move faster, be stronger, or be able to employ their full force during fast movements. Increases in muscle power in all multiplanar motions, brain signal efficiency, kinaesthetic or bodily spatial awareness, motor abilities, and response time are some advantages of speed, agility, and quickness training. (Advanced & 2016, 2018) [1]. SAQ training can offer an extremely specialized and detailed training method that will assist the performer in achieving their goals by taking into account the energy systems involved in the athlete's sport, the specificity of the movement patterns, muscle action, the speed and range of motions performed, and the specific needs of the athlete (Arjunan, 2015) [2].

## 2. Materials and methods

SAQ system of training aimed at the development of motor abilities and the control of body movement through the development of the neuromuscular system. Attacking skills play a significant role in overall soccer performance. Therefore, it implements that the SAQ training method is

growing in popularity, and thus, it is being used as a method of improving attacking skills. This study was conducted to understand the football attacking skills and techniques of players. During this study, it conducted several tests for test development of the Attacking skill of beginners through SAQ training. The purposive sample method was used to select the sample. There were three random trials were conducted before the start of the training session. The Johnson Soccer skill test was used to measure the attacking skills of the players. And these results were used as pre-test results.

After conducting 8 weeks of the SAQ program player's attacking skills were measured by the Johnson Soccer skill test and these results were used as post-test results. There hypothesis that attacking skills would improve after 8 weeks of a planned SAQ program

### 2.1 Test Procedure

Johnson Soccer Skilling Procedure Purpose- Measure general soccer attacking ability

Equipment- Soccer ball, stopwatch, backboard (24ft and 8ft height)

Procedure- The subject holds a soccer ball while standing behind the resting line. On the signal to begin. The subject kicks the ball against the backboard as many times as possible 30sec. the ball must kick from the resting line. When he ball loose the ball he can either take the spare ball or continue the same ball for time duration 30sec. Scoring- The highest number of legal kicks in any of the trails. (East & Centre, 1863) [3].

## 3. Results and Discussion

Table 1: Paired sample test

	Paired different					T	DF	Sig. (2-Tailed)
	Mean	STD. Deviation	STD. Error mean	95% confidence interval of the difference				
				Lower	Upper			
Pair 1: Post-test 1 - Pre-test	.833	1.169	.477	-.394	2.060	1.746	5	.141
Pair 2: Post-test 2 - Pre-test 1	.833	1.472	.601	-.711	2.378	1.387	5	.224
Pair 3: Post-test 3 - Pre-test 2	.667	1.033	.422	-.417	1.751	1.581	5	.175

When consider control group three pairs that statistically shows that the calculated t values are 1.746, 1.387 and 1.581 respectively for three trails. These calculated t values are less than the table value that is 2.015. Hence the value shows no

significance difference in pre and post-test of district soccer player under control group. It means there is no difference between trial of pre-test and post test results under control group.

Table 2: Paired sample test

	Paired different					T	DF	Sig. (2-Tailed)
	Mean	STD. Deviation	STD. Error mean	95% confidence interval of the difference				
				Lower	Upper			
Pair 1: Post-test - Pre-test	3.333	1.862	.760	1.379	5.287	4.385	5	.007
Pair 2: Post-test 1 - Pre-test 1	3.000	.632	.258	2.336	3.664	11.619	5	.0
Pair 3: Post-test 2 - Pre-test 2	3.167	1.169	.477	1.940	4.394	6.635	5	.001

When considering table 4 treatment group three pairs that statistically shows that the calculated t values are 4.385, 11.619 and 6.635 respectively for three trials. These calculated t values are more than the table value which is 2.015. Hence the value shows the significant difference in pre and post-test of district soccer players under the treatment group. It means there is a positive difference between trials of pre-test and post-test results under the treatment group. So SAQ training develops the attacking skills of midfield players.

The present study discovered that SAQ training Program intervention had a positive effect on midfield soccer players'

attacking skills. Players in the experimental group improved their Performance significantly regardless of the time that was necessary to complete the agility test.

These findings show that specific speed and agility training (SAQ) when included in the overall training regimen, can be a valuable technique for enhancing speed and agility in young football players. That was confirmed (Milanović *et al.*, 2013) [6]. Further the article (Ovanovic *et al.*, 2011) [9] SAQ training Program intervention had a positive effect on improving the skills of young soccer players.

A suitable training routine can help agility increase in later years (Milanović *et al.*, 2013) [6] even if it is generally agreed

that the ideal time to develop agility is the age of 16 (Markovi *et al.*, 2007) <sup>[12]</sup>. Under-14 football players were employed in this study. Although this study revealed that agility can be enhanced in younger years with the use of a suitable training regimen. This study unequivocally demonstrated that there is a need for more research on football, specifically on how SAQ training can increase agility and how much of it should be incorporated into regular training routines.

#### 4. Conclusion

The specific speed and agility (SAQ) training program helped U14 football players perform better on several agility tests, which was statistically significant. These results support the argument that the SAQ course needs to be included in regular soccer training. Further research is required to determine how much SAQ training is included in pre and in-season practices, as informal evidence suggests that many teams do not practice agility as often as they should. According to research, effective SAQ training will increase football players' agility and prepare them to handle the requirements of the game.

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