



Effect of Small Sided Games Training on Speed and Agility among State Level Men Football Players

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Abstract

The purpose of this study was to determine Effect of Small Sided Games Training on Speed and Agility among State Level Men Football Players. The research was conducted on a sample of 30 State Level Men Football players and their age ranged between 18 and 25 years. They were randomly divided into two groups: those undertaking a Small Sided Gamestraining (n=15) and a control group (n=15). The subjects took part in a Small Sided Gamestraining for five days a week for ten weeks. The subjects' speed and agility were assessed before and after the completion of the Small Sided Games training. The result shows that after the ten weeks of the Small Sided Gamestraining proved significant variation were found in the subjects' speed and agility in the experimental group ($p < 0.05$). There were no significant differences in the control group after the experiment in terms of the same measures ($P > 0.05$). The Small Sided Games training proved to be a useful training modality for football players and in terms of speed and agility. There was a clear response to the ten week Small Sided Games training in terms of performance in football players.

Keywords: Speed, Agility, Small Sided Games.

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Introduction

Small-sided games (SSGs) are played on reduced pitch areas, often using modified rules and involving a smaller number of players than traditional football. Small-sided games are very popular not only in adult soccer players but also in young players and their use begins from an early age. Due to the smaller pitch and the less number of participants during small-sided games, each player comes into contact with the ball and deals with common game situations more often (Capranica et al., 2001). The physical qualities that are specific to footballers are strength, speed, endurance, agility and flexibility, qualities that ensure brief, intense and repeated exertions throughout the match and allow players to express themselves in every game situation. In the current context, physical preparation is a high priority in top-level football. It enables a physical potential to be created for the whole season and personalized for individual players in terms of their physical optimization, prevention and reconditioning. Speed represents the ability to repeat sprints at the highest level. Speed training is introduced around halfway through the initial training session, when the player is able to with stand it without restriction. This training focuses on explosiveness, strength and speed,

the main objective being to maintain explosiveness for as long as possible in a match.

It involves the ability to repeat series of sprints for the entire match without a significant loss of performance. A footballer's physical performance is very often linked to his ability to repeat sprints at an optimum level. The speed and energy levels of top players are crucial to their performance. Speed is thus essential to modern football. During a match, a player sprints for a total of around 600 metres at a speed of over 20 km/h. Speed is a multifaceted quality that requires suppleness, flexibility, coordination and strength. The typical distance covered by a top-level outfield male player during a match is 10–13 km (Bangsbo et al., 1991; Mohr et al., 2003; Krstrup et al., 2005; Bangsbo et al., 2006; Mascio & Bradley, 2013). Agility concerns an athlete's ability to perform rapid actions within a few metres while changing direction quickly. The ability to maintain footing, rhythm and frequency of arm and leg movement is essential at this level. Agility is regularly worked on the day before a match, with exercises focusing on maintaining footing and changes of direction while combining different types of visual or aural stimuli or movements.

Methodology

The purpose of the study was to determine the effect of small sided games training on speed and agility among state level men football players. In the present study 30 men student were selected by random sample

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from Andhra Pradesh. The subject chosen for this study were divided randomly into two equal groups called one control and one experimental groups consisting of 15 players in each group. Their age ranged from 18 to 25 years. The investigator explained to them the purpose, importance of the experiment and the procedure to be employed and the testing procedure was also explained to them in detail. Ten weeks of small sided games training were given to the experimental groups. The control group was allowed to do their regular work. The experimental groups underwent the training programme as per the training schedule prepared the investigator.

The training programme was held five days in a week for 10 week, the training was conducted. The tests selected for the study were standardized tests and most suitable for the present study. The investigator was present with subjects of the control group and the experimental groups during the experimentation of the pre test and the post test was conducted. The data collected were statically examined for significant differences, if any by applying analysis of covariance (ANCOVA). In all the cases, 0.05 level of confidence was used to test the significance, which was considered as appropriate.

Results

Table I. Results of ANCOVA between small sided games training and Control Groups on Speed

| Test | CG | SSG | SV | SS | df | MS | F |
|-----------|------|------|---------|------|----|-------|---------------|
| Pre Test | 7.13 | 7.21 | Between | 0.05 | 1 | 0.048 | 1.66 |
| | | | Within | 0.81 | 28 | 0.03 | |
| Post Test | 7.15 | 7.01 | Between | 0.16 | 1 | 0.16 | 6.39* |
| | | | Within | 0.71 | 28 | 0.03 | |
| Adjusted | 7.19 | 6.97 | Between | 0.31 | 1 | 0.31 | 42.54* |
| | | | Within | 0.20 | 27 | 0.01 | |
| Mean Gain | 0.02 | 0.21 | | | | | |

The table values required for significance at .05 level of confidence for degree of freedom 1 and 28 and 1 and 27 are 4.20 and 4.21 respectively

Table II. Results of ANCOVA between small sided games training and Control Groups on Agility

| Test | CG | SSG | SV | SS | df | MS | F |
|-----------|-------|-------|---------|------|----|-------|---------------|
| Pre Test | 10.87 | 10.73 | Between | 0.13 | 1 | 0.133 | 1.40 |
| | | | Within | 2.67 | 28 | 0.10 | |
| Post Test | 10.82 | 10.47 | Between | 0.90 | 1 | 0.90 | 12.29* |
| | | | Within | 2.05 | 28 | 0.07 | |
| Adjusted | 10.78 | 10.52 | Between | 0.47 | 1 | 0.47 | 14.86* |
| | | | Within | 0.86 | 27 | 0.03 | |
| Mean Gain | 0.05 | 0.26 | | | | | |

The table values required for significance at .05 level of confidence for degree of freedom 1 and 28 and 1 and 27 are 4.20 and 4.21 respectively

In table I and II, the results of the ANCOVA for speed and agility are presented. In analysis of covariance, the final means are adjusted for differences in the initial means and the adjusted means of small sided games group and control group on speed and agility are tested for significance. From the table it can be seen that the calculated F value of 42.54 for speed and

14.86 for agility between groups is greater than the table value 4.21 indicating that it is significant ($P < 0.05$) for the degrees of freedom (1,27) at 0.05 level. The calculated F value indicated that there are significant differences in speed and agility between the groups because of the training effect of small sided games training.

Figure I. Bar diagram showing the Initial and Final Adjusted Mean Values of Speed between Control and Small sided games groups

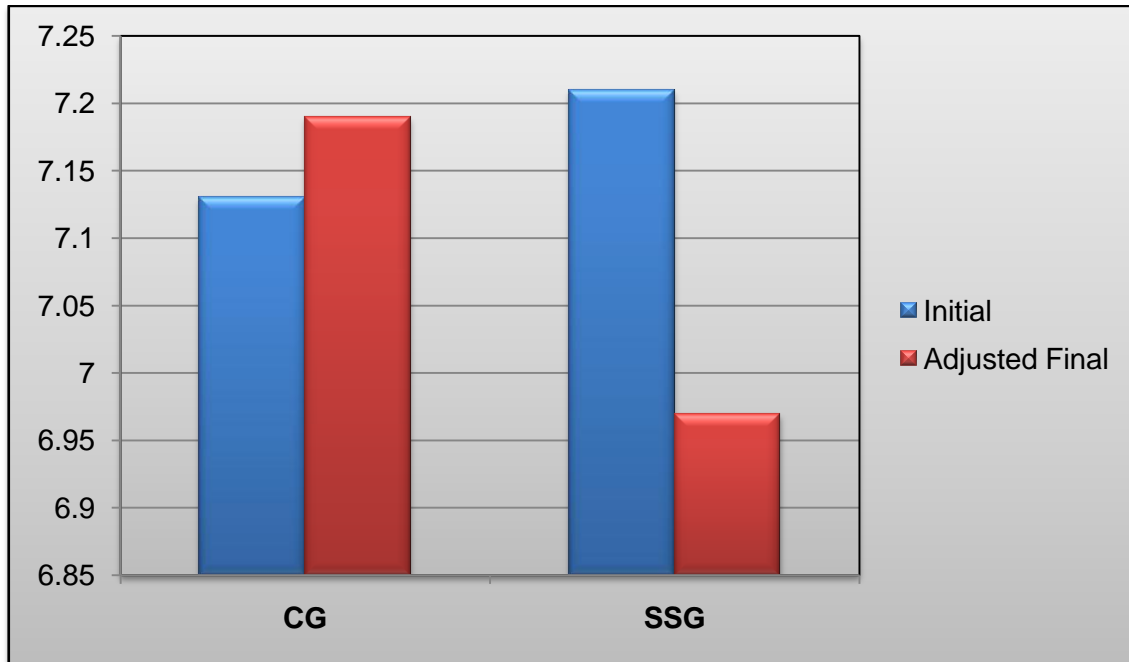
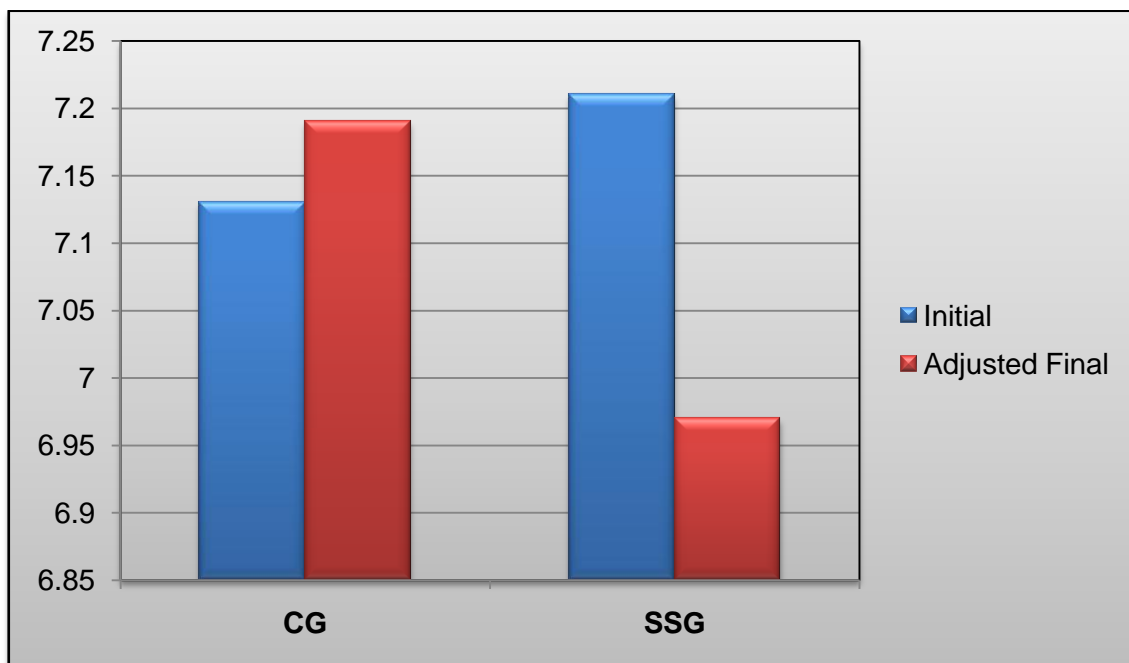


Figure II. Bar diagram showing the Initial and Final Adjusted Mean Values of Agility between Control and Small sided games groups



Conclusions

The physical qualities that are specific to footballers are speed and agility qualities that ensure brief, intense and repeated exertions throughout the match and allow players to express themselves in every game situation. A footballer’s physical performance is very often linked to his ability to repeat sprints at an optimum level. The speed and agility levels of top

players are crucial to their performance. Speed and agility is thus essential to modern football. From the analysis of the data, there was a significant difference existed between small sided games group and control group due to ten weeks of experimental training on Speed and agility. Among the two groups, small sided games group significantly improved the Speed and agility than that of Control group.

Reference

1. Bangsbo, J., L. Nørregaard, and F. Thorsøe (1991). Activity profile of competition football. *Can. J. Sports Sci.* 16(2):110-116.
2. Bangsbo, J., M. Mohr, and P. Krstrup (2006). Physical and metabolic demands of training and match-play in the elite football player. *J. Sports Sci.* 24: 665-674.
3. Capranica, L., Tessitore, A., Guidetti, L. and Figura, F. (2001) Heart rate and match analysis in pre-pubescent soccer players. *Journal of Sports Sciences* 19, 379-384.
4. Krstrup, P., M. Mohr, H. Ellingsgaard and J. Bangsbo (2005). Physical demands during an elite female soccer game: importance of training status. *Med. Sci. Sports Exerc.* 37:1242-1248.
5. Mascio, M., and P.S. Bradley (2013). Evaluation of the most intense high-intensity running period in English FA premier league soccer matches. *J. Strength Cond. Res.* 27(4):909-915.
6. Mohr, M., P. Krstrup, and J. Bangsbo (2003). Match performance of high-standard soccer players with special reference to development of fatigue. *J. Sport Sci.* 21:439-449.