

Comparison of Speed Cardio Respiratory Endurance and Agility Between Academy and Non Academy Soccer Players

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Abstract

The purpose of the study was to compare the Speed, Cardio respiratory endurance and Agility between academy and non academy soccer players. To achieve this purpose, thirty male soccer players were selected as subjects among them fifteen academy soccer players and fifteen non-academy soccer players, their ages ranged between 18 and 21 years. They were studying in Sri Venkateswara junior college (Academy), Secom junior college, and Emerald junior college (Non-academy) Tirupati, Andhra Pradesh &. The selected variables such as speed, cardio respiratory endurance and agility were tested by using 50 meters dash, cooper's 12 min run/walk test and shuttle run. The collected data were subjected (calculated) to t – ratio to find out the significant difference if any between the groups. The results of the study showed that there was a significant difference on selected criterion variables such as speed, cardio respiratory endurance, and agility, between academy and non academy soccer players.

Keywords: Speed, Agility, Cardio respiratory endurance, Soccer.

Introduction

Soccer is a sport requiring high levels of physical fitness. It is one of those rare games which demands not only speed but agility, strength, power and endurance. Players at top levels can run over 14 km in a game whilst not forgetting the frequent accelerations, decelerations, changes of direction and jumps they must undertake. Fitness is important at all levels of the game, whilst being essential for top level players; it is beneficial for beginners who will improve both their effectiveness and enjoyment through good standards of fitness. The aim of fitness training in football is to enable a player to cope with the physical demands of the game as well as allowing the efficient use of his various technical and tactical competencies throughout the match.

Different sports require different fitness components. Football players must be able to perform prolonged intermittent exercise (endurance), exercise at high-intensity, sprint, and develop high levels of power (force) when kicking and tackling. Good levels of agility and coordination are also necessary and distinguish between elite and average players. During a game the exercise intensity varies continually thus fitness training should be as realistic as possible. Training should also involve regular use of the ball as this will not only help develop the specific muscles involved in match play, but improve technical and tactical skills and help keep players interested.

There are many factors which influence the pace at which one performs on the field. They include reflexes, tactical anticipation, agility and so on. Playing at high pace is increasingly important at the more competitive levels. Soccer speed is not confined to sprinting alone as players rarely sprint for over 20 meters at a time. It is just as important to practice rapid change of direction, acceleration and above all, speed with the ball. The average professional footballer is in motion almost constantly for 90 minutes of play. There is no "perfect" or universal fitness routine that every player should follow. Training plans are like doctor prescriptions; each one serves a different purpose and helps the user's individual condition or personal goal. Most successful footballers have spent many hours alone working on their skills.

Statement of the Problem

The purpose of this study was to compare the Speed, Cardio Respiratory Endurance and Agility between Academy and non Academy Soccer players.

Methodology

Thirty male soccer players were selected as subjects among them fifteen academy soccer players and fifteen non-academy soccer players. The selected academy soccer players were studying in Sri Venkateswara Junior College, Tirupati and non-academy soccer player are studying in SEECOM Junior College, and Emerald junior college, Tirupati, Andhra Pradesh, and their ages ranged between 18 and 21 years.

The selected criterion variables were assessed by using standard tests and procedures such as speed, cardio respiratory endurance and agility by using 50 meters dash, cooper’s 12 minutes run/walk test and shuttle run, respectively.

Results and Statistical Technique

The data were collected from the two groups and was statistically examined by (using) employing t-ratio to find out significant difference between the academy and non-academy soccer players

Table – I

Mean scores, Standard Deviations and T-ratio of Speed of Academy and Non Academy Soccer Players

Group	Mean	SD deviation	‘t’ - ratio
Academy	7.67	0.233	5.89*
Non Academy	8.41	0.405	

Significant at 0.05level.

Table –I shows that significant difference was found in speed performance between academy and non academy soccer players($t=5.89, <.05$), which means academy soccer players are having more speed when compared with non academy soccer players.

Table – II

Mean scores, Standard Deviations and t-ratio of Cardio Respiratory Endurance of Academy and Non Academy Soccer Players

Group	Mean	SD deviation	‘T’ - ratio
Academy	2543.51	122.01	8.10*
Non Academy	2785.19	129.85	

Significant at 0.05level.

Table –II shows that significant difference was found in cardio respiratory endurance between academy and non academy soccer players ($t=8.10, <.05$), which means academy soccer players are having better cardio respiratory endurance when compared with non academy soccer players.

Table – III
Mean Scores, Standard Deviations and t-ratio of Agility of
Academy and Non Academy Soccer Players

Group	Mean	SD deviation	't' - ratio
Academy	9.16	0.93	6.54*
Non Academy	10.20	0.81	

Significant at 0.05level.

Table –III shows that significant difference was found in Agility between academy and non academy soccer players ($t=6.54, <.05$), which means academy soccer players are having more Agility when compared with non academy soccer players.

Results and Discussion

Based on the results of the study, it indicates that there was a significant difference between academy and non-academy soccer players on selected criterion variables such as speed, cardio respiratory endurance and agility. Since the academy soccer players got special attention and training with improved facilities and good nutritious diet and financial variables, including fitness-oriented facilities available, metropolitan location, and discretionary expenditures per student, they performed better than non academy soccer players

Conclusions

Based on the results of the present study, it was concluded that there was a significant differences on selected general fitness variables such as speed, cardio respiratory endurance and agility between the academy and non academy soccer players.

References

- Arnason Arni, et al., (2004), Physical fitness, injuries, and team performance in soccer, *Medicine and Science in Sports and Exercise*, 36: 278-285.
- Barry L Johnson and Jack K Nelson, (1982), *Practical Measurement for Evaluation in Physical Education*, Delhi: Surjeet Publication.
- James R. Morrow et.al., (2000), Prevalence and Correlates of Physical Fitness Testing in U.S. Schools, *Research Quarterly for Exercise and Sport*, 72(2): 141–148.
- Jerry R Thomas, (2006), Physical Fitness and Academic Achievement, *The Journal of Physical Education, Recreation & Dance*, 77.
- Jennet W. Clair (1971), An Investigation of test of Agility, *Research Quarterly for Exercise and Sport*, .42(3).

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