

# USE OF DIFFERENCES IN BODY SIZE AND MOTOR ABILITY FOR TALENT IDENTIFICATION IN YOUTH SOCCER PLAYERS

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## Introduction

Recently, many studies have reported that agility and speed can be used as parameters for talent identification in youth soccer players. Thus, as “talent may be characterized by properties that are genetically transmitted and partly innate,” it is necessary to examine the differences in the ranking of motor abilities during adolescence.

## Methods

In the initial experimental year, 19 youth soccer players (U13: 11, U15: 8) were tested for the parameters of height, body weight, 20 m/40 m sprint, shuttle-run agility test and 5 steps bounding power test. These parameters were retested two years later, and then the correlation between both data sets was examined.

## Results

In the younger age group, the initial data on height ( $r = 0.87$ ), body weight ( $r = 0.97$ ), 20 m sprint time ( $r = 0.71$ ) and 40 m sprint time ( $r = 0.91$ ) strongly correlated to the data obtained two years later, whereas in the older age group, only height ( $r = 0.98$ ) and 40 m sprint time ( $r = 0.96$ ) showed statistically significant correlations. However, in the younger age group, the height of some players showed remarkable increase during the two years, after which it caught up with that of the others. In addition, in the older age group, the large individual differences in the initial 40 m sprint time reduced two years later (fig.1). Shuttle run and bounding, on the other hand, showed no significant correlations.

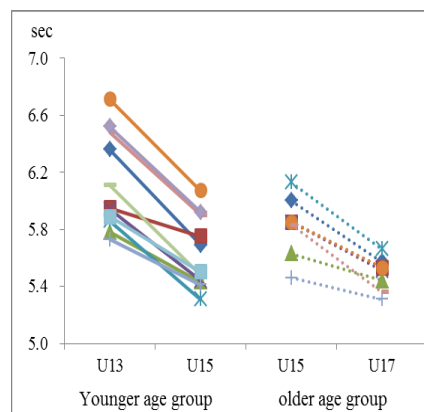


Figure 1. Two-year change in 40 m sprint time

## Discussion and Conclusion

Our findings imply that speed is the stable parameter across all the participants. However, we should ignore the fact that large individual differences in early adolescents may reduce later in young adults. Moreover, in some cases, height increases remarkably during adolescence, thus exhibiting high risk when used as a parameter of talent identification in youth soccer players.

## References

1. Williams, AM., Reilly T. (2000) *J Spo Sci*, 18: 657-667.  
Talent identification and development in soccer.