

COMPARITIVE STUDY OF SPECIFIC RUNNING SPEED TEST AMONG JUNIOR BOYS AND GIRLS ATHLETES OF KERALA

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ABSTRACT

The purpose of this study was to compare specific running Speed tests for Junior Boys and Girls athletes of Kerala. For this study, the researcher selected 10 junior boys and 10 junior Girls athletes from various sports academies and academic Institutions of Kerala. Their age ranged from 15 to 17 years. All the groups' speeds were tested their 35 meter speed by positional start and flying start. The data collected on each variable was described by finding out the mean and standard deviation. To find out whether the mean difference is significant or not dependent 't' test was employed. From the data collected it is clear that the flying start test had significantly better speed in all tested groups compare to positional start. Since the calculated 't' value of Junior Boys (t- 27.672) and Junior Girls Athletes (t-8.908) groups were greater than the required table value(t.05 (9, 2) = 2.262). The result of the study shows that flying start is the better test to test athletes or non-athletes speed.

INTRODUCTION

Sprinting is the act of running a short distance at (or near) the highest / maximum speed and is important in sports that incorporate running, typically as a way of quickly reaching a target or goal, or avoiding or catching an opponent. Human physiology dictates that a runner's near-top speed cannot be maintained for more than 30–35 seconds due to the accumulation of lactic acid in muscles.

In athletics and track and field, sprints (or dashes) are races over short distances. They are among the oldest running competitions. The first 13 editions of the Ancient Olympic Games featured only one event—the stadium race, which was a race from one end of the stadium to the other. There are three sprinting events which

are currently held at the Summer Olympics and outdoor World Championships: the 100 meters, 200 meters, and 400 meters. These events have their roots in races of imperial measurements which were later altered to metric: the 100 m evolved from the 100 yard dash, the 200 m distances came from the furlong (or 1/8 of a mile),¹ and the 400 m was the successor to the 440 yard dash or quarter-mile race.

At the professional level, sprinters begin the race by assuming a crouching position in the starting blocks before leaning forward and gradually moving into an upright position as the race progresses and momentum is gained. The set position differs depending on the start. Body alignment is of key importance in producing the optimal amount of force. Ideally the athlete should begin in a 4-point stance and push off using both legs for maximum force production. Athletes remain in the same lane on the running track throughout all sprinting events. Races up to 100 m are largely focused upon acceleration to an athlete's maximum speed. All sprints beyond this distance increasingly incorporate an element of endurance.

Speed tests are critical tools to help coaches learn a lot about a player or an athlete. What position they are best suited for, and how they are progressing over time are probably the two biggest take away points. The tests give them a way to guide their training. Working athletes who want to improve know exactly what they need to work on in order to be faster the next time. Assessment is a critical piece in tracking the development of any young athlete, but without a clear path for improvement. The results from tests can be used to predict future performance; besides can indicate weaknesses and it will be a measure for the improvement for athletes. Test results also helps to enable the coach to assess the success of his / her training program and place the athlete in an appropriate training group, in order to motivate the athletes.

Since, various tests are used to test speed by the researchers / scholars, a need is felt for conducting a study which will be able to find out which speed test is useful for all the age groups. Besides, this will be able to be conducted irrespective of gender, so that to find out which speed test is applicable for male and female, as the study involves a lot of variety of groups of different age and gender.

METHODOLOGY

The purpose of this study was to compare the specific running speed tests among junior boys and girls athletes of Kerala. The study was conducted among junior boys and girls athletes from different academic institutions and sports academies. The subject's age ranging from 15 to 17 years. All the groups' speeds were tested 35 meters using flying and positional start. The data collected on each variable was described by finding out the mean and standard deviation. To find out whether the mean difference is significant or not dependent 't' test was employed.

RESULTS AND DISCUSSION

To find out the significant mean difference between groups Dependent 't' test was used. The mean difference of the criterion measures for the groups are presented in tables.

TABLE I**DESCRIPTIVE STATISTICS OF JUNIOR BOYS ATHLETES AND JUNIOR BOYS ATHLETES GROUPS 35 METERS SPEED IN FLYING START AND POSITIONAL START**

Groups	Test	Mean	N	Std. Deviation	Std. Error Mean
Junior Girls	Positional Start	5.5940	10	.20271	.06410
	Flying Start	5.0060	10	.19811	.06265
Junior Boys	Positional Start	5.0690	10	.26291	.08314
	Flying Start	4.6130	10	.24486	.07743

ABLE II**MEAN COMPARISON OF JUNIOR BOYS ATHLETES AND JUNIOR BOYS ATHLETES GROUPS 35 METERS SPEED IN FLYING START AND POSITIONAL START**

Groups	Test	Mean	Std. Deviation	Std. Error Mean	t
Junior Girls	Positional Start- Flying Start	.58800	.20874	.06601	8.908
Junior Boys	Positional Start- Flying Start	.45600	.05211	.01648	27.672

* Significant at $t_{.05}(9, 2) = 2.262$.

From the tables it is clear that the flying start test had significantly better speed in all tested groups compare to positional start. Since the calculated 't' value of Junior Boys ($t=27.672$) and Junior Girls Athletes ($t=8.908$) groups were greater than the required table value($t_{.05}(9, 2) = 2.262$).

The result of the study shows that flying start is the better test to test athletes speed. Hence, the researcher's hypothesis was accepted and the null hypothesis was rejected. The illustration of mean difference of Junior boys and girls Athletes in 35 meters Speed in Positional Start and Flying Start is presented in figure 1.

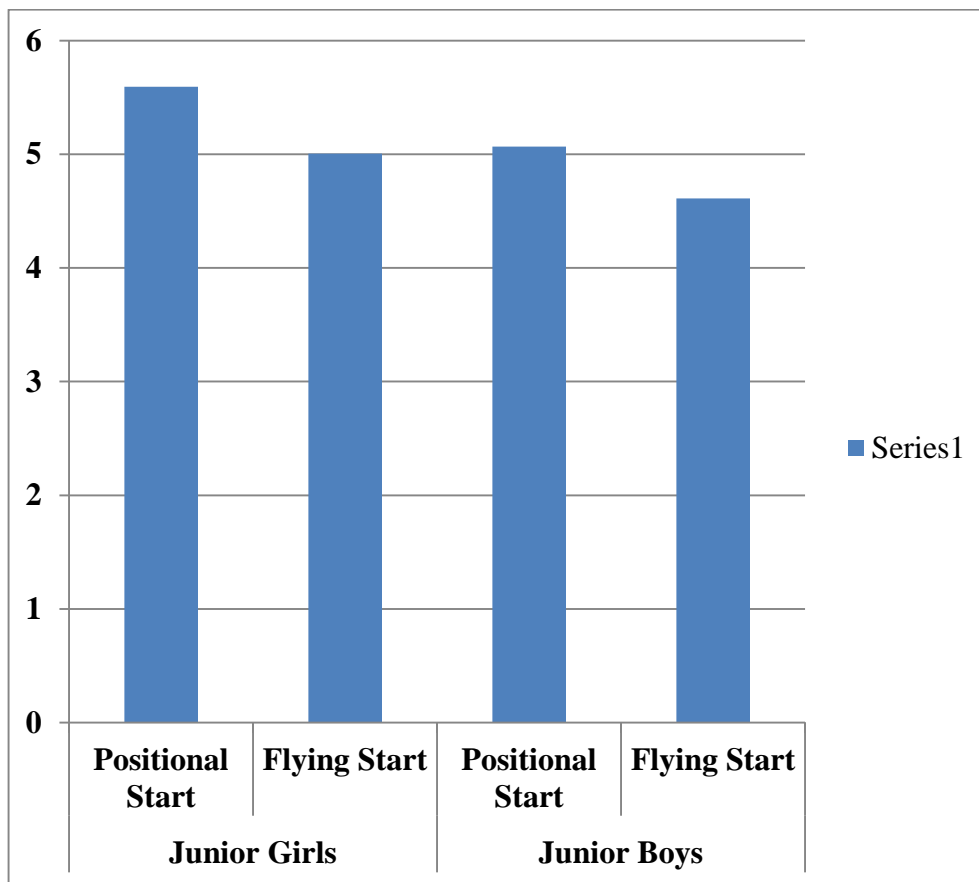


Fig 1: Graphical representation of the mean differences of Junior Girls and Boys Athletes Groups 35meters Speed in Positional Start And Flying Start.

CONCLUSIONS

The results of the study seems to be permitted for the following conclusions:

1. The study shows that flying start is the better test to test athletes or non-athletes speed.

RECOMMENDATIONS

In the light of conclusions drawn, the following recommendations are made:

1. Similar studies may be under taken for different age groups and sex other than this study.
2. Similar longitudinal studies may be undertaken by increasing the distance or by using various starting methods.

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