



E-ISSN: 2706-8927

P-ISSN: 2706-8919

www.allstudyjournal.com

IJAAS 2021; 3(4): 103-104

Received: 05-07-2021

Accepted: 22-09-2021

Dr. Hitesh D Rathod

B.P.Ed., M.P.Ed., Ph.D.

Principal, Saket College of
Physical Education, Gondia,
Maharashtra, India

An interrelationship study of speed in crouch start and standing start among sprinters of R.T.M. Nagpur University

Dr. Hitesh D Rathod

Abstract

Background: The crouching start is where when the gun shooter says "On your Mark" you stand in front of your line and you bend down and put your hands right under the line never above or you will get disqualified. Then when they say "Get set" You lean forward and put your butt in the air (not too much and not too little). Then once the gun shoots you take off. There are three types of sprint starts: Bunch or Bullet start, Medium start Elongated start. The Standing start in the races of longer distance 800m.

Materials and Methods: The purpose of the present study to find out the speed in crouch start and standing start among sprinters of R.T.M. Nagpur University in India. The sample for the present study consists of 32 Male sprinters of R.T.M. Nagpur University. The 50 M Run is used to assess the speed in Standing Start and Crouch Start. The Standing Start Run for 32 sprinters and on next day same 32 sprinters the Crouch Start with the starting blocks in medium start position is conducted by the Qualified Technical Officials in 50 M Run to assess the speed.

Results: The results of the study shows that in crouch start timing is faster than the standing start timing in 50 M Run.

Discussion & Conclusion: Sprint starts are very commonly used in athletics in sprints. The standing start is used by beginner athletes before they progress to the crouch start, while competitive athletes use the block start that allows them to apply force and thus aids in push off that can be transferred into horizontal velocity which can give the sprinters the speed compare to the standing start.

Keywords: Standing Start and Crouch Start, sprinters, beginner athletes

Introductions

Sprints are short running events in athletics and track and field. Races over short distances are among the oldest running competitions. The first 13 editions of the Ancient Olympic Games featured only one event-the stadion 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 metres, 200 metres and 400 metres. Starting Blocks are used for all competition sprint (up to and including 400 m) and relay events (first leg only, up to 4×400m). The starting blocks consist of two adjustable footplates attached to a rigid frame. Races commence with the firing of the starter's gun. The starting commands are "On your marks" and "Set". Once all athletes are in the set position, the starter's gun is fired, officially starting the race. For the 100 m, all competitors are lined up side-by-side. For the 200 m, 300 m and 400 m, which involve curves, runners are staggered for the start.

In the rare event that there are technical issues with a start, a green card is shown to all the athletes. The green card carries no penalty. If an athlete is unhappy with track conditions after the "on your marks" command is given, the athlete must raise a hand before the "set" command and provide the Start referee with a reason. It is then up to the Start referee to decide if the reason is valid. In the event that the Start referee deems the reason invalid, a yellow card (warning) is issued to that particular athlete. In the event that the athlete is already on a warning the athlete is disqualified.

Crouch start

Sprint starts are very commonly used in athletics ranging from sprints to a number of middle and long distance events. The two main variations are the standing and the crouch start which are used for middle or long distance events and sprints respectively.

Corresponding Author:

Dr. Hitesh D Rathod

B.P.Ed., M.P.Ed., Ph.D.

Principal, Saket College of
Physical Education, Gondia,
Maharashtra, India

The crouching start is where when the gun shooter says "On your Mark" you stand in front of your line and you bend down and put your hands right under the line never above or you will get disqualified. Then when they say "Get set" You lean forward and put your butt in the air (not to much and not to little).

There are three types of sprint starts

Bunch or bullet start: The toes of the rear foot are approximately level with the heel of the front foot and both feet are placed well back from the starting line.

Medium start: The knee of the rear leg is placed opposite a point in the front half of the front foot.

Elongated start: The knee of the rear leg is level with or slightly behind the heel of the front foot.

Standing start

The standing Start is used in the event more than 400 Meters. The standing start is used by beginner athletes before they progress to the crouch start, while competitive athletes use the block start that allows them to apply force and thus aids in push off that can be transferred into horizontal velocity. In the standing start the athlete strands rather upright with one foot behind the other.

Materials and Methods

The aim of the present study to find out the speed in crouch start and standing start among sprinters of R.T.M. Nagpur University in India. The sample for the present study consists of 32 Male sprinters of R.T.M. Nagpur University. The 50 M Run is used to assess the speed in Standing Start and Crouch Start.

50 meters run

Sprint or speed tests can be performed over varying distances, depending on the factors being tested and the relevance to the sport. The 50 Meter Sprint is part of the International Physical Fitness Test, and their protocol is listed here.

Purpose

The aim of this test is to determine acceleration and speed.

Equipment Required

Measuring tape or marked track, stopwatch, cone markers, flat and clear surface of at least 70 meters.

Procedure

The test involves running a single maximum sprint over 50 meters, with the time recorded.

Results

Two trials are allowed, and the best time is recorded to the nearest 2 decimal places.

Results and discussion

The results of the study shows that in crouch start timing is faster than the standing start timing in 50 M Run.

The Table No. 1 showing the Mean, S.D, Standard Error, t-ratio of Sprinters in Standing Start and Sprinters in Crouch Start in 50 Meters Run.

Table 1: Showing the Mean, S.D, Standard Error, t-ratio of Sprinters in Standing Start and Sprinters in Crouch Start in 50 Meters Run

Results of 50 M Run Test	N	Mean	Std. Deviation	Std. Error Mean	t	df	Sig. (2-tailed)
Standing Start	32	6.87	0.48	0.12			
Crouch Start	32	6.55	0.23	0.06	2.25	62.00	0.03

The Sprinters standing start mean performance in 30 M Run is 6.87 and Standard Deviation is 0.48 and Sprinters Crouch Start mean performance in 50 M Run is 6.55 and Standard Deviation is 0.23. The sprinters in crouch start are having the better speed i.e. 6.55 compare the sprinters in standing start is 6.87 there is a difference 0.32. The t-value is 2.25.

Conclusions

It is concluded that Crouch Start is having better speed and advantage in Sprints compare to the Standing Start.

Recommendations

It is recommended that similar studies can be conducted in hurdles and relays in athletics.

References

1. Wikipedia Sprints, Top end Sports
2. Budhe AA. Track and Field, Angel Publication, New Delhi 2014.
3. Singh BK. Understanding Athletics, A.K. Publishers, Kolkata, West Bengal.
4. Singh Yadvinder. Sports Training, Nipun Prakashan, New Delhi.
5. Dick S. Science of Sports Training, Human Kinetics.
6. Aneja OP. How to Play Athletics, Sports Publication, New Delhi.