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**Kulbeer Singh**  
Assistant Professor, Malwa  
College of Physical Education,  
Bathinda, Punjab, India

## An exploratory study of speed ability of Punjab and Haryana boxers

**Kulbeer Singh**

### Abstract

The purpose of this exploration was to find out the difference of speed ability among Punjab and Haryana boxers. 160 male Punjab and Haryana boxers aged between 19-28 years were selected for this study. The purposive sampling technique was used to attain the objectives of the study. The subjects were further being divided into four groups on the basis of weight categories: light weight (57-60), light welter weight (60-64), welter weight (64-69). Statistica ® 7.0 software was used in data analysis. The between-group differences were assessed by using the Student's t-test for dependent data. It has been observed that Haryana boxers have demonstrated better Speed than the Punjab boxers.

**Keywords:** Speed ability, Punjab and Haryana boxers

### Introduction

Boxing is an intermittent sport characterized by short duration, high intensity bursts of activity. It requires significant anaerobic fitness, and operates within a well-developed aerobic system. Boxing is estimated to be 70-80% anaerobic and 20-30% aerobic (Ghosh *et al.*, 1995) [3]. Boxing's work and rest ratio is approximately 3:1. The rule of the amateur boxing has been changed from 3 × 3 round to 2 × 5 round in 1990 world championship competition, and then 4 × 2 rounds with one minute of rest pause in between each bout. The nature of boxing requires athletes to sustain power at a high percentage of maximal oxygen uptakes (VO<sub>2</sub>max) (often above lactate threshold, producing high levels of blood lactate leading to premature fatigue). The primary aim of conditioning for boxing is to delay the onset of fatigue by increasing tolerance of lactic acid build-up, increasing the ATP and CP, to improve efficiency of oxygen use, and to improve recovery between intense bursts of activity.

Few studies have been reported in the literature about the cardiovascular and metabolic demands of boxing (Khanna *et al.*, 1992, 1995 Ghosh *et al.*, 1995) [4, 5, 1, 2]. Previous studies on Indian boxers concentrated mainly on body composition, muscle strength, aerobic capacity, and anaerobic power of Indian Boxers (Ghosh *et al.*, 1995; Khanna *et al.* 1992, 1995; [3, 4, 5]). Few investigations into the biochemical parameters of Indian boxers (Garg *et al.* 1985) [1, 2] have been conducted. Therefore, the present work focused on physical, physiological and anthropometric characteristics among Punjab and Haryana boxers.

### Selection of Subjects

160 male Punjab and Haryana boxers aged between 19-28 years were selected for this study. The purposive sampling technique was used to attain the objectives of the study. The subjects were further being divided into four groups on the basis of weight categories:

1. light weight (57-60)
2. light welter weight (60-64)
3. welter weight (64-69)
4. middle weight (69-75)

**Correspondence**  
**Kulbeer Singh**  
Assistant Professor, Malwa  
College of Physical Education,  
Bathinda, Punjab, India

160 BOXERS							
Light Weight Boxers		Light Welter Weight Boxers		Welter Weight Boxers		Middle Weight Boxers	
40		40		40		40	
Haryana	Punjab	Haryana	Punjab	Haryana	Punjab	Haryana	Punjab
20	20	20	20	20	20	20	20

Selection of Variable

**Speed**

- **Test:** 50 meter dash.
- **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. A thorough warm up will be given, including some practice starts and accelerations. Start from a stationary standing position (hands cannot touch the ground), with one foot in front of the other. The front foot must be behind the starting line. Once the subject is ready and motionless, the starter gives the instructions "set" then "go." The tester should provide hints for maximizing speed (such as keeping low, driving hard with the arms and legs) and the participant should be encouraged to not slow down before crossing the finish line.
- **Scoring:** The time will be recorded to the nearest 1/100<sup>th</sup> of a second.

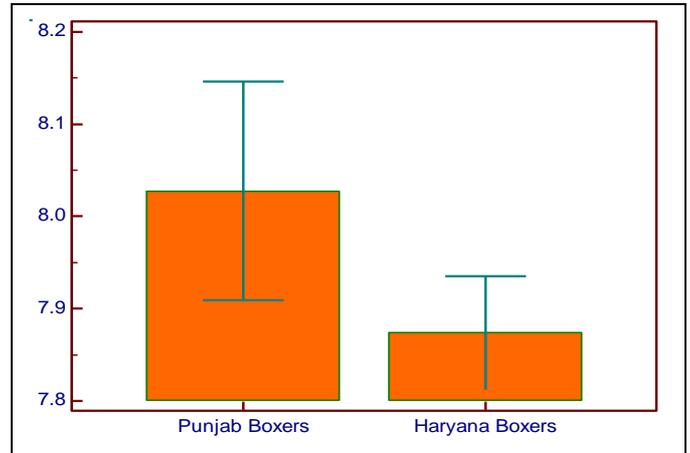
**Statistical Analysis**

Statistica @ 7.0 software was used in data analysis. The between-group differences were assessed by using the Student's t-test for dependent data.

**Table 1:** Mean Values (±SD), Standard Error of the Mean and Test Statistic t of Speed in Punjab Boxers (N = 80) and Haryana Boxers (N = 80).

	Punjab Boxers	Haryana Boxers
Sample size	80	80
Arithmetic mean	8.0276	7.8739
95% CI for the mean	7.9090 to 8.1462	7.8121 to 7.9356
Variance	0.2840	0.07700
Standard deviation	0.5329	0.2775
Standard error of the mean	0.05958	0.03102
Difference	0.1537	
Standard Error	0.06717	
95% CI of difference	0.2864 to 0.02108	
Test statistic t	2.289	
Degrees of Freedom (DF)	158	
Two-tailed probability	P<0.0234	

Table-1 presents the results of Punjab boxers and Haryana boxers with regard to the variable Speed. The descriptive statistics shows the Mean and SD values of Punjab boxers on the sub-variable Speed as 8.02 and 0.53 respectively. However, Haryana boxers had Mean and SD values as 7.87 and 0.27 respectively. The Mean Difference and Standard Error Difference of Mean were 0.15 and 0.06 respectively. The 't'-value 2.289 as shown in the table above was found statistically significant (P<.05). But while comparing the mean values of both the groups, it has been observed that Haryana boxers have demonstrated better Speed than the Punjab boxers. The comparison of mean scores of both the groups has been presented graphically in figure-1.



**Fig 1:** Graphical representation of mean scores Punjab Boxers (N = 80) and Haryana Boxers (N = 80) with regard to Physical Fitness Components on the sub-variable Speed.

**References**

1. Garg S, Khanna GL, Ghosh AK. Relationship between uric acid and maximum aerobic power in Indian National Boxers. Snipes Journal. 1985; 8:55-61.
2. Garg S, Khanna GL, Ghosh AK. Relationship between uric acid and maximum aerobic power in Indian National Boxers. Snipes Journal. 1985; 8:55-61.
3. Ghosh AK, Goswami A, Ahuja A. Heart rate and blood lactate response in amateur competitive boxing. Indian Journal of Medical Research. 1995; 102:179-183.
4. Khanna GL, Dey SK, Batra M, Saha M. Applied physiology of sports; Indian National Sports persons. Pb Sports Authority of India Netaji Subhas Southern Centre; Bangalore (India), 1992.
5. Khanna GL, Majumdar P, Saha M. A comparative study of physiological profile of Indian and Cuban Boxers. Journal of Physical Education and Sports Science. 1995; 94:13-21.