



## Construction and Evaluation of Test and Norms on Speed among Different Topography of Goa State School Boys

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### Abstract

*The test is an instrument of measurement used to obtain data about a specific trait of characteristic of an individual or group. Tests must be evaluated in terms of improved service to the growth and happiness of learners and players. It is an attempt to measure the needs and capabilities of individuals with a view to help and never to make invidious distinction. Norms are used to interpret relative standing to compare scores or groups and either to combine or average scores. The study was aimed to construct a new test and norm on speed among different topography of Goa state school boys. To attain the purpose of the study, 100 school boys were randomly selected as subjects from different topography of Goa state and their age was between 15 and 17 years. The subjects (N=100) were randomly selected where 50 subjects from high altitude (hill region) and 50 subjects from low altitude (coastal region). To measure the speed of the subject, 30-meter fly test was used as a newly constructed test. The researcher designed the research method in three phases such as pilot study phase, test phase and validity phase. During pilot study phase, 10 subjects were participated to design, refine and finalize the constructed tests. During the test period, 20 subjects were participated to reconstruct and finalize the tests. During validity phase, data were collected to assess the speed. Pearson's Product Moment Correlation was used to correlate the constructed test scores and criterion test scores to establish the validity of the newly constructed test and hull scale was used to construct the norms. The subjects were classified and thereby the objectivity of the test could be proved. It was concluded that the newly constructed test to measure speed was reliable, valid and objective in its consistency.*

**Keywords:** Test, Norms, Speed.

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### Introduction

Test is a specific tool, procedure or technique used to elicit a response from the students in order to gain information to be used as a basis for appraisal of the quantity or quality of elements such as fitness, skill knowledge and value. Hardayal Singh, (1993) describes that a test has validity if it measures what it purports to measure. Test generally is used to describe instrument procedures and techniques that result in responses that can be evaluated in terms of their correctness (Harold. M Barrow, and McGree 1989).

Norms are derived scores that are determined from raw scores obtained by a specific group on specific test. Whenever norms are determined for a given group of people, half of the people will fall above the middle of the distribution and half of the people will fall below. The norm scales are accepted a valid and practical criterion for evaluating the individual physical fitness tests. When norm scales are being constructed one must

consider the practical, statistical and educational principles. (Yobu, A., 1991)

Speed is the capacity of the individual to perform successive movements of the same pattern at a faster rate (Gothi, Ekta, 1993).

### Purpose of the study

The purpose of the study was to construct a new test and norms on speed among different topography of Goa state school boys.

### Hypothesis

It was hypothesized that the newly designed test would truly measure the speed among different topography of Goa state school boys.

### Methodology

The purpose of the study was to construct a new test and norm on speed among different topography of Goa state school boys. To achieve this purpose, 100 school boys in the age group of 15 to 17 years from different topography of Goa state were randomly selected as subjects. The subjects (N=100) were randomly selected where 50 subjects from high altitude

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(hill region) and 50 subjects from low altitude (coastal region). To measure the speed of the subject, 30-meter fly test was used as a newly constructed test. The researcher designed the research method in three phases such as pilot study phase, test phase and validity phase. During pilot study phase, 10 subjects were participated to design, refine and finalize the constructed tests. During the test period, 20 subjects were participated to reconstruct and finalize the tests. During validity phase, data were collected to assess the speed. Based on the

scores, hull scales were computed and the subjects were classified and thereby the objectivity of the test could be proved. Pearson's Product Moment Correlation was used to correlate the constructed test scores and criterion test scores to establish the validity of the newly constructed test and hull scale was used to construct the norms. The subjects were classified and thereby the objectivity of the test could be proved.

## Results

Table 1

*Validity Coefficient of the Constructed Test and Criterion Test for Speed*

	Mean	Std. Deviation	N
<b>Constructed Test</b>	6.3480	.45410	100
<b>Criterion Test</b>	6.4419	.49185	100

		Constructed Test	Criterion Test
<b>Constructed Test</b>	Pearson Correlation	1	.910**
	Sig. (2-tailed)		.000
	N	100	100
<b>Criterion Test</b>	Pearson Correlation	.910**	1
	Sig. (2-tailed)	.000	
	N	100	100

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 2

*Hull Scale Value for Speed Test*

Variable	Mean	SD	Hull Scale Constant
Speed	6.348	.454	0.032

To construct the norms for the speed test, Hull scale test was constructed. The Hull scale value 0.032 was serially added to and subtracted from mean to determine the value from zero to hundred in the scale. When the Hull scale value 0.032 was added to the mean score 6.348, the speed performance of the constructed test for 51<sup>st</sup> score was calculated as 6.38. Similarly, for the 49<sup>th</sup> score Hull scale was deducted from the mean and was calculated as 6.316.

## Conclusion

It was concluded that the newly constructed test to measure speed was reliable, valid and objective in its consistency as the test has been carefully constructed with great care, clear test directions, precise scoring method and adherence of them. Through the constructed test, norms have been constructed and the boys were

classified. The newly constructed test would truly measure the speed of an individual.

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