Relationship between Height and Swimming Performance among Junior Boys Swimmers

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ABSTRACT

Competitive swimming is a unique sport which is very difficult to participate when compared to land sports. In competitive swimming, water offer greater density and more resistance which will be difficult for the swimmers to propel forward movement. The purpose of the study was to determine the correlation between height and swimming performance among junior boys swimmers. To achieve the purpose of the study, 25 state level junior male middle distance swimmers were randomly selected from Puducherry in the age group of 14 to 17 years. The stadiometer and 50 mts free style were used to measure height and swimming performance of the swimmers. The Pearson's Product Moment Correlation was utilized to identify relationship between test variables. It was concluded that there was a significant inverse relationship between height and swimming performance of junior boys swimmers.

Key words: Height, Swimming Performance, Pearson's Product Moment Correlation.

INTRODUCTION

Swimming is an individual or team racing sport that requires the use of one's entire body to move through water. The sport takes place in pools or open water. Competitive swimming is one of the most popular Olympic sports, with varied distance events in butterfly, backstroke, breaststroke, freestyle, and individual medley. In addition to these individual events, four swimmers can take part in either a freestyle or medley relay.

In swimming each stroke requires a set of specific techniques; in competition, there are distinct regulations concerning the acceptable form for each individual stroke. There are also

regulations on what types of swimsuits, caps, jewelry and injury tape that are allowed at competitions. Escalante, Yolanda, et.al., (2012)

The future of research within performance prediction undoubtedly lies in the development of artificial intelligence systems such as neural networking. In simplistic terms, an artificial neural network is a computer-simulated mathematical model of the neurons within the human brain that is able to learn from experience. Hughes, Mike et.al., (2015)

Regular participation in physical activity can contribute to the development of a positive self-concept and greater self-esteem. It enhances self-confidence, emotional stability, assertiveness, independence, and self-control. Wuest, Deboran A. et. al., (1992).

In the field of games and sports, that process which helps in preparing sports-persons to participate in competitions and tournaments of various levels is known as sports training. All the learning influences and processes that are aimed at enhancing sports performance are important parts of sports training. Aneja O P., (2015).

The height of the subject is measured in centimeters while standing in erect position. The measuring scale used as a stadiometer. The chin of the subject and the head was held erect. The height was measured to the nearest centimeter. Yobu A, (2010).

PURPOSE OF THE STUDY

The purpose of the study was to estimate relationship between height and swimming performance of junior boys swimmers.

HYPOTHESIS

It was hypothesised that there would be a significant relationship between height and swimming performance of junior boys swimmers.

METHODOLOGY

To achieve the purpose of the study, 25 junior boys swimmers were randomly selected from Puducherry in the age group of 14 to 17 years. The data were collected from all 25 subjects on height and swimming performance. The investigator administered 50 mts free style to measure swimming performance and used stadiometer to measure height of the swimmers. To estimate the relationships between the selected variables, descriptive statistics and the Pearson's Product Moment Correlation were used. The level of confidence was fixed at 0.05 level to test the significance.

RESULT AND FINDINGS OF THE STUDY

Descriptive statistics was applied on all data. After determining normal distribution of the test variables, Pearson's Product Moment correlation was used to identify relationship between test variables.

Table 1 Descriptive statistics and Correlation Coefficient of Height and Swimming Performance of Junior Boys Swimmers

Variable	N	Mean	SD	Correlation Coefficient (r)	P Value
Height	25	157.28	2.54		
Swimming Performance (50 Mts Free Style)	25	31.12	1.01	-0.515^{**}	0.001

**: Correlation is Significant at 0.05 level (2-tailed)

DISCUSSION OF THE FINDINGS

Table 1 shows that the Mean and SD of height and swimming performance of junior boys swimmers. Table 1 also indicates that there exists a significant relationship between height and swimming performance of junior boys swimmers (r=-0.515) and the p-value was 0.001. It was observed that there was inverse correlation between height (in centimeters) and swimming performance (in seconds).

From the over view of previous researches and present research, the study confirmed that the height was most dominating variable for the improvement of swimming performance of an individual.

CONCLUSION

Within the limitation of the present study and on the basis of outcomes of the study, it can be concluded that there was a significant inverse relationship between height and swimming performance of junior boys swimmers.

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