# A Study of Motor Fitness Components of Runners and Swimmers of Nagpur Maharashtra

### Amit Arun Gajbhiye<sup>1</sup>\* Dr. Amit Ramesh Chand Kanwar<sup>2</sup>

<sup>1</sup> Research Scholar, Gondwana University, Gadchiroli

<sup>2</sup> Assistant Director, Hislop College, Nagpur

Abstract – The purpose of this study was to compare the Motor fitness of Runners and Swimmers of Nagpur Maharashtra of Nagpur District of Maharashtra. The research was a descriptive comparative method. A total of 50 samples, in which 25 Runners and 25 Swimmers of age group of 18-25 years were selected purposively from the Nagpur District Level competitions of Swimming and Running. The criterion measures adopted for this study were Agility and Speed. The data collection tools used in the study were shuttle run and 50 yard dash. Data of Motor Fitness Components of Runners and Swimmers was compared by using independent Sample "t" test. The level of significance was kept at 0.05 level of significant to test the hypothesis. The researcher analyzed the collected data as per the objectives set for the research study. The statistical analysis of Motor Fitness components revealed that in the Component Agility there was no significant difference between Runners and Swimmers. But in Component speed there was significant difference between Runners and Swimmers. In the present the results also showed that in both the Motor fitness components like agility and speed, the Runners were found to be better than Swimmers. Finally the researcher concluded that the Runners were more fit as compare to Swimmers. This clearly shows that athletes of Runners are more fit as compare to athletes of Swimmers.

Key Words: Motor Fitness, Runners and Swimmers.

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### INTRODUCTION

Motor fitness may be defined as the successful adaptation to stresses of one's life style. The requirement of fitness is highly specific for different sports. It is quite possible to feel fit when a few scientific states would prove that one was far from it in physiological terms. It is also possible that one is very fit is one of the sports such as Running and swimming, but when one swims a 100 meters quickly he/she gets out breath and feel quite tired. The purpose of this study was to compare the Motor fitness of Runners and Swimmers of Nagpur District of Maharashtra

### **MATERIAL AND METHODS**

The research was a descriptive comparative method. A total of 50 samples, in which 25 Runners and 25 Swimmers of age group of 18-25 years were selected purposively from the Nagpur District Level competitions of Swimming and Running. The criterion measures adopted for this study were Agility and Speed. The data collection tools used in the study were shuttle run and 50 yard dash. Data of Motor Fitness Components of Runners and Swimmers was compared by using independent Sample 't' test. The

level of significance was kept at 0.05 level of significant to test the hypothesis.

### **RESULTS**

Table No.1.1

## Descriptive statistics of Agility and Speed of Runners and Swimmers

| Motor<br>Fitness<br>Variables | Groups   | N  | Mean   | Standard<br>Deviation | St. Error<br>Mean |
|-------------------------------|----------|----|--------|-----------------------|-------------------|
| Agility                       | Runners  | 25 | 6.9600 | 1.24097               | .24819            |
|                               | Swimmers | 25 | 7.5600 | 1.04403               | .20881            |
| Speed                         | Runners  | 25 | 7.1600 | 1.14310               | .22862            |
|                               | Swimmers | 25 | 8.0000 | 1.00000               | .20000            |

#### Table No 1.2

### Independent sample 't' test of Agility and Speed of Runners and Swimmers

| Motor<br>fitness<br>Variables | 't' value | Df | Sig.<br>(2-tailed) | Mean<br>Difference | Std. Error<br>Difference |
|-------------------------------|-----------|----|--------------------|--------------------|--------------------------|
| Agility                       | -1.850    | 48 | .070               | 60000              | .32435                   |
| Speed                         | -2.765    | 48 | .008               | 84000              | .30375                   |

### **FINDINGS AND DISCUSSION**

The researcher analyzed the collected data as per the objectives set for the research study. The statistical analysis of Motor Fitness components revealed that in the Component Agility there was no significant difference between Runners and Swimmers. But in Component speed there was significant difference between Runners and Swimmers. In the present the results also showed that in both the Motor fitness components like agility and speed, the Runners were found to be better than Swimmers.

#### CONCLUSION

Finally the researcher concluded that the Runners were more fit as compare to Swimmers. This clearly shows that athletes of Runners are more fit as compare to athletes of Swimmers.

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### **Corresponding Author**

### Amit Arun Gajbhiye\*

Research Scholar, Gondwana University, Gadchiroli