

Impact Factor - 6.262

ISSN-2348-7143

INTERNATIONAL RESEARCH FELLOWS ASSOCIATION'S

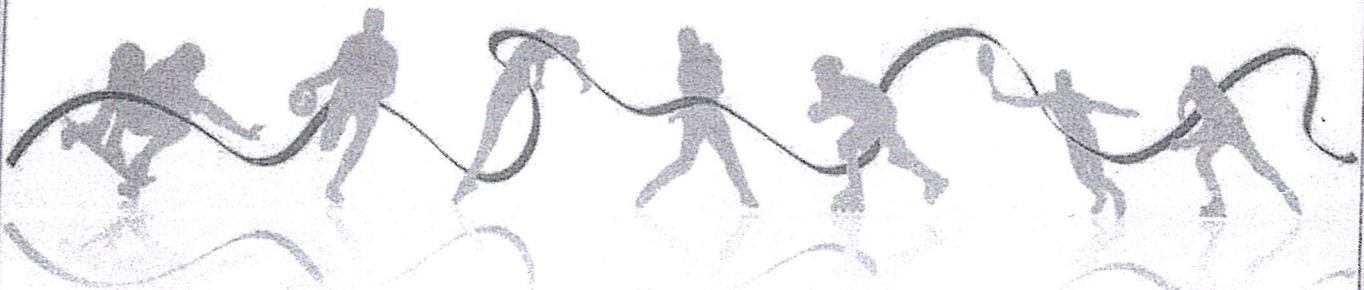
# **RESEARCH JOURNEY**

*Multidisciplinary International E-research Journal*

**PEER REFEREED & INDEXED JOURNAL**

December : 2018

Special Issue - LXXVI (A)



**The Journal is indexed in:**

University Grant Commission (UGC) Sr. No. 40705

Scientific Journal Impact Factor (SJIF)

Cosmos Impact Factor (CIF)

Global Impact Factor (GIF)

Universal Impact Factor (UIF)

International Impact Factor Services (IIFS)

Indian Citation Index (ICI)

Dictionary of Research Journal Index (DRJI)



Principal  
Mahatma Gandhi Arts,  
Science & Late  
N. P. Commerce College,  
Armori, Dist - Gadchiroli





## Elation of selected physical fitness factors and physiological variables in performance of 50 mtrs. Back strok

**PROF.DNYANESHWAR V. THAKRE**

Director of Physical Education

M.G. Arts, Science & L.N.P.

Commerce College Armori.

Dist: Gadchiroli

### Abstract

Swimming has become a competitive sports, numerous changes are taking place in the context of improving performance. Progress in athletics is due to enormous increase in amount of training and application of scientific knowledge Training is a complex phenomenon and is very scientific in nature. One must know the crucial factors which play an important role to determine success in the particular area. This study reveal the role played by some crucial factors which determine the success in swimming and helpful in planning the programme for sprint swimmers. This study may be helpful in selecting beginners in swimming for the best potential swimmers on the basis of these selected variables. he findings of the study (Table) indicated that arm strength, leg strength, shoulder flexibility, vital capacity, of swimmers correlated significantly with performance in 50 metres back stroke swimming, at .05 level of confidence. The obtained value of r for arm strength, leg strength, shoulder flexibility, vital capacity were .665, .516, .535 respectively. However, there were no significant positive relationship found between speed in swimming and systolic and diastolic blood pressure as the r values achieved were 0.296 and 0.181 respectively.

**Key Word:** Swimming, Physiology, Variables, Fitness, Programme. Back Stroke, Performance

### INTRODUCTION.

Swimming, now a days, is not only a recreational activity, but also has become a competitive sports. Due to this competitive factor people's purpose of involving themselves in swimming has been changed over to swim faster and for longer duration than just to recreate. Ever one wants to show superiority over the others. This is innate tendency of human beings. For this purpose, people change the mode of swimming from art and recreation to competition. They do strenuous work in water and self-punish by painful activity to achieve their best performance in competition. There are certain factors which seem to play an important role to determine success in swimming, such as strength, flexibility, vital capacity, endurance and blood pressure.

However it seems that not much has been attempted scientifically to determine precisely the comparative relationship of such factors as arm strength, leg strength, shoulder flexibility, vital capacity, blood pressure to swimming speed.

### METHODOLOGY :

The purpose of this study was to investigate the relationship of selected physical fitness factors and physiological variables to performance in fifty meters back stroke swimming. This study was confined to 15 male, middle school and high school students, ranging in age between 11 to 18 years, studying at various schools. Taking into consideration the availability of time and

