



## RELATIONSHIP OF MOTOR ABILITY BETWEEN NATIONAL AND INTERNATIONAL LEVEL MALE JUDO PLAYERS

(Received on: 27 Feb 2016, Reviewed on: 31 March 2016 and Accepted on: 21 June 2016)

**Mr. Chetan Sharma**, Research Scholar,  
**Dr. Ashok Kumar Sharma**, Assistant Professor  
Department of Physical Education, C.D.L.U. Sirsa, Haryana



### Abstract

The purpose of the study was to find out the "relationship of motor ability between national and international level male judo players of Haryana". The study was conducted on 30 male national ( $N_1=15$ ) and international ( $N_2=15$ ) Judo players of Haryana, 18-28 years of age group. For estimating motor ability, Barrow motor ability test (1957) was used which included standing broad jump (cm.), Zig-zag run (sec.), Medicine ball put (cm), Soft ball Throw (mt.), Wall pass (nos.) and 60 yard run (sec). It was hypothesized that there would be insignificant relationship of motor ability between national and international level male judo players of Haryana. Statistics: - To find out the relationship of motor ability between national and international level male judo players of Haryana was established for each item by computing Pearson Product Movement co-efficient of correlation. The result showed that there was insignificant relationship between standing broad jump, zig-zag run, medicine ball put, soft ball throw, wall pass and 60 yard run of national and international male judo players of as the obtained results (0.31, 0.34, 0.01, 0.22, 0.36 and 0.18 respectively) showed positive relationship between the two at 0.05 level of significance. The finding indicates that standing broad jump, zig-zag run, medicine ball put, soft ball throw, wall

pass and 60 yard run were important variables for better performance in judo.

**Keywords:** Judo players, motor ability, Barrow motor ability test, correlation.

### Introduction

Top form in sports is an important aspect of athlete's life. It plays an important role in bringing about physical, physiological, psychological and social growth of the country. Competitive Sports are becoming progressively more sophisticated technical going popularity as separate profession with expansion of educational facilities in the country more young people are taking part in sports as a daily feature of their life. The participation in sports and physical fitness increase an individual output, it also promotes societal harmony and discipline.

Judo is a Japanese word meaning "gentle way," and is a type of martial art that comes from the ancient Japanese martial art of jujitsu, meaning "yielding way." In 1882, Dr. Jigoro Kano, president of Tokyo's University of Education, incorporated what he thought to be the best jujitsu techniques into what is now the sport of judo. It emphasizes using balance, leverage, and movement in all of its skills, especially throws. This Olympic sport was only open to men until 1988, when it was a women's demonstration sport; in 1992, it became an official Olympic medal event for



women. The system of ranks found in many martial arts, usually identified by belts of different colors, was first used in judo. The ranks recognize hard work, as well as increased knowledge and ability of the martial art. The most noticeable thing to someone watching judo would likely be the variety of powerful throwing techniques.

Grappling techniques are also important to learn, and include various control holds, arm and joint locks, pins, and choking techniques. Gracie Jiu-Jitsu contains strikes and numerous self-defense techniques that are not applicable in sporting competitions, but that can be extremely useful in "real world" situations. (Harris, B., & Potter, S. Z. (2017, April 12)

Motor fitness has been defined as a readiness or preparedness for performance with required for big muscle activity without undue fatigue (Barrow). It includes the capacity of individual to move efficiently and with strength and force over a reasonable length of time. Motor fitness is, only a limited phase of physical activities which includes, at least average capacity in wide variety of fundamentals. Motor activities, balance, flexibility, agility. Power and the activity are sufficient in any game. For example in swimming it will become the ability to swim and ability to save life. In average skill, the running, jumping, climbing, crawling and throwing are the basic skills which make fundamental and all these are highly related to total fitness in some manner and these cannot be separated into divisible parts for development.

Lech, G., et al. (2011) was conducted this study to identify coordinated motor abilities that affect fighting methods and performance in junior judokas. Subjects were selected for the study in consideration of their age, competition experience, body mass and prior sports level.

Subjects' competition history was taken into consideration when analysing the effectiveness of current fight actions, and individual sports level was determined with consideration to rank in the analysed competitions. The study sought to determine the level of coordinated motor abilities of competitors. The scope of this analysis covered the following aspects: kinaesthetic differentiation, movement frequency, simple and selective reaction time (evoked by a visual or auditory stimulus), spatial orientation, visual-motor coordination, rhythmization, speed, accuracy and precision of movements and the ability to adapt movements and balance. A set of computer tests was employed for the analysis of all of the coordination abilities, while balance examinations were based on the Flamingo Balance Test. Finally, all relationships were determined based on the Spearman's rank correlation coefficient. It was observed that the activity of the contestants during the fight correlated with the ability to differentiate movements and speed, accuracy and precision of movement, whereas the achievement level during competition was connected with reaction time.

## **Methodology**

### Subjects

The study was conducted on 30 male national ( $N_1 = 15$ ) and international ( $N_2 = 15$ ) Judo players of Haryana, 18-28 years of age group. These subjects were selected in terms of purposive sample from judo games.

### Selection of Variables

Motor ability was considered as variables for the study. For measuring motor ability, Barrow motor ability test (1957) was used which included standing broad jump (cm.), Zig-zag run (sec.), Medicine ball put (cm), Soft ball



Throw (mt.), Wall pass (nos.) and 60 yard run (sec).

#### Collection of data

For estimating motor ability, Barrow motor ability test (1957) was used which included standing broad jump (cm.), Zig-zag run (sec.), Medicine ball put (cm), Soft ball Throw (mt.), Wall pass (nos.) and 60 yard run (sec).

#### **Statistical Procedure**

To find out the relationship between the selected anthropometric variables with the performance of judo players was established for each item by computing Pearson Product Movement co-efficient of correlation. The level of significance chosen to test the hypothesis was 0.05,  $P < 0.05$

#### **Findings and Discuss**

Findings pertaining to the Barrow motor ability test (1957) including standing broad jump (cm.), Zig-zag run (sec.), Medicine ball put (cm), Soft ball Throw (mt.), Wall pass (nos.) and 60 yard run (sec), was subjected to the Pearson Product Movement co-efficient of correlation has been given in Table 1.

TABLE - 1  
RELATIONSHIP BETWEEN SELECTED MOTOR FITABILITIES  
OF NATIONAL AND INTERNATIONAL MALE JUDO PLAYERS

Parameters	Correlation Co-efficient (r)
Standing broad jump (cm.)	0.31
Zig-zag run (sec.)	0.34
Medicine ball put (cm)	0.01
Soft ball Throw (mt.)	0.22
Wall pass (nos.)	0.36
60 yard run (sec)	0.18

Significant at.05 level

It is evident from Table 1 that there was positive insignificant relationship between standing broad jump, zig-zag run, medicine ball put, soft ball throw, wall pass and 60 yard run of national and international male judo

players of as the obtained results (0.31, 0.34, 0.01, 0.22, 0.36 and 0.18 respectively) showed positive relationship between the two.

#### **Discussion**

The present study was conducted to find out the relationship of motor ability between national and international level male judo players of Haryana. It has been found that there was positive insignificant relationship between standing broad jump, zig-zag run, medicine ball put, soft ball throw, wall pass and 60 yard run of national and international male judo players of as the obtained results (0.31, 0.34, 0.01, 0.22, 0.36 and 0.18 respectively) showed positive relationship between the two. Judo performance is based on the motor abilities, techniques and tactics of the players. The finding could not show the significant relationship of motor abilities between national and international level male judo players of Haryana but it indicates that all the variables show positive relationship of motor abilities between national and international level male judo players of Haryana. In the light of findings of the study, the hypothesis that there would be no significant relationship of motor ability between national and international level male judo players of Haryana was accepted.

#### **Conclusions**

Within the limitations of the study, the findings pertaining to the study resolved statistically insignificant relationship of motor ability between national and international level male judo players. The results show that judo players had positive relationship between motor abilities of national and international level male judo players but this relationship was not significant at 0.05 level of significance.



Within the limitations of the present study following conclusions may be drawn:

- In regard to standing broad jump there was no significant relationship between standing broad jump of national and international level male judo players of Haryana.
- In regard to zig-zag run there was no significant relationship between zig-zag run of national and international level male judo players of Haryana.
- In regard to medicine ball put, there was no significant relationship between medicine ball put of national and international level male judo players of Haryana.
- In regard to soft ball throw, there was no significant relationship between soft ball throw of national and international level male judo players of Haryana.
- In regard to wall pass there was no significant relationship between wall pass of national and international level male judo players of Haryana.
- In regard to 60 yard run there was no significant relationship between 60 yard run of national and international level male judo players of Haryana.

## References:

- Barry L. Johnson, Jack K. Nelson (1994) Practical measurement for Evaluation in physical education, (Third Edition), Surjeet Publication, Delhi pp. 355-357
- Clark, H., Clark David H. (1972). Advanced Statistical Supplement to Research Process in Physical education, Recreation and Health, Englewood Cliffs, N.J. Prentice Hall Inc., p.20.
- Clarke, H. H. (1967). Application of measurement to health and physical education. Englewood Cliffs, NJ: Prentice-Hall.
- Clarke, H. H., Clarke, D. H., & Clarke, H. H. (1987). Application of measurement to physical education. Englewood Cliffs, NJ: Prentice-Hall.
- David Z., Paed, Pavel K. (2012). The Introduction into Sports Training, (Masaryk University, Brno)
- Harris, B., & Potter, S. Z. (2017, April 12). What is Judo? Retrieved April 26, 2017, from <http://www.wisegeek.com/what-is-judo.htm>
- Krstulovic, S., Zuvela, F., & Katić, R. (2006). Biomotor systems in elite junior judoists. *Collegium antropologicum*, 30(4), 845-851.
- Kuvačić G, Krstulović S, Caput PD. (2017) Factors Determining Success in Youth Judokas. *J Hum Kinet.* 12;56:207-217. doi: 10.1515/hukin-2017-0038. eCollection 2017 Feb. PubMed PMID: 28469759; PubMed Central PMCID: PMC5384068.
- McMahon, M., & Wallace, O. (2017, April 19). What is Anthropometric? Retrieved April 26, 2017, from <http://www.wisegeek.com/what-is-anthropometric.htm>
- Lamani, C. G. (2015). A study of biomechanical and anthropometric variables of off spin bowler of Goa. *International Journal of Physical Education, Sports and Health*, vol. 3(1): 01-03.
- Lämmle, L., Tittlbach, S., Oberger, J., Worth, A., & Bös, K. (2010). A two-level model of motor performance ability. *Journal of Exercise Science & Fitness*, 8(1), 41-49.
- Lech, G., Jaworski, J., Lyakh, V., & Krawczyk, R. (2011). Effect of the level of coordinated motor abilities on performance in junior judokas. *Journal of human kinetics*, 30, 153-160. Paul, A., & Halprin, R. (2017, April 07). What is Motor Fitness? Retrieved April 26, 2017, from <http://www.wisegeek.com/what-is-motor-fitness.htm>