



Comparative Study on Agility Of Intercollegiate Players of Certain Combative Sports

KEYWORDS

Agility, Boxers, Judokas and wrestlers, intercollegiate level.

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ABSTRACT *Agility is the ability to be quick and graceful movements. Agility is one of the main fitness components, important for success in many sports, such as in the team sports of football and hockey, and in individual sports of tennis and squash. Judo, Boxing and wrestling are the sport in which movements are powerful, delivered in a short period of time, usually against the force of the opponent. Purpose of this study was to find out agility of male intercollegiate boxers, judoks and wrestlers. For this purpose total 75 male subject were selected out of which 25 each was selected from the three combative sports (Boxing, Judo and Wrestling). The age of sports persons was between 18 – 28 years and only those sportspersons who participated in intercollegiate competition and residing in the Chandrapur and Gadchiroli district of Maharastra. SEMO agility test applied for assessing the agility of subjects. Analysis of Variance (ANOVA) followed by Least Significance Difference (LSD) was applied on gathered data. Analysis of data revealed that the mean agility of boxers is significantly better than mean agility of judoka and wrestlers.*

INTRODUCTION

Physical fitness is an essential quality in man. A person who is good in strength feels superior and tends to be well adjusted, while a person who is poor in strength feel inferior, a tendency towards social difficulties and not adjusted. The famous Greek philosopher Aristotle stated, "Every individual should be physically fit to enjoy the life fully." A physically fit individual is mentally alert, emotionally balanced and socially well adjusted. He faces the problems of life with confidence. In short physical well being is the basis of all forms of excellence.

In the context of competitive sport, physical fitness is pre-requisite. Physical fitness is 'an ability of the human body to meet demands imposed on it by the environment and daily life.' As understood in a common man's language, fitness is a state of body that helps develop a more positive and dynamic attitude to life and is likely to affect most phases of human existence. Efficiently working lungs and heart, general alertness, muscular strength, energy, and stamina are the overt signs of physical fitness.

The five fitness components that are deemed health-related are: cardio, strength, endurance, flexibility, and body composition. In addition, speed, agility, power, balance, and coordination have been identified as performance-related. All of these qualities exist to some degree in most sports, but developing certain combinations is important in any given sport. While definitions are assigned to qualities that represent what "fitness" is, it can be operationalized in different ways for each sport. In other words, fitness for one sport is somewhat different for another.

Agility is the ability to be quick and graceful movements. Agility is one of the main fitness components, important for success in many sports, such as in the team sports of football and hockey, and in individual sports of tennis and squash. A vote of the top sports requiring agility has the sports of soccer, basketball and tennis ranked highest. (<http://www.topensports.com/fitness/agility.htm>).

A **combat sport**, or **fighting sport**, is a competitive con-

tact sport with one-on-one combat. Determining the winner depends on the particular contest's rules. In many fighting sports, a contestant wins by scoring more points than the opponent or by disabling the opponent. Boxing, Kickboxing, amateur wrestling, Judo, Brazilian Jujitsu, mixed martial arts, and Muay Thai are examples of combat sports.

Combat sporting events are now held internationally all around the world due to the increase in popularity however the violent nature of certain combat sports has lead to some governments having to change rules. The New South Wales government in Australia has now created a Combat Sports Authority of New South Wales. They have enforced a registration policy where competitors have to register before being permitted to fight in a scheduled contest. The Combat Sports Authority has also lifted the prohibition of women as boxers as this is seen as discrimination and all cage fighting within New South Wales has been banned (Garney 2008).

Judo, Boxing and wrestling are the sport in which movements are powerful, delivered in a short period of time, usually against the force of the opponent (Drapsin 2009). It is a sport of changeable intensity of effort and the sportsperson should be flexible and agile to match the opponent.

It is common knowledge that agility and change-of-direction-speed are used interchangeably in sport literature. Therefore, a significant proportion of real sport agility depends on quick and accurate responses to stimuli specific to sport environments (Spasic et al. 2015). The agility that is accepted among the mentioned factors is stated as acceleration, deceleration and changing direction frequently and also described as starting and stopping in a quick manner (Young et al. 2001). In many branches of sports activities that comprise sudden changes, quickness and agility are of utmost importance (Miller et al. 2006). However, wrestling is not only a fight but is a sport branch requiring sportive performance and control such as a high level

of strength, flexibility, speed, agility, balance and reaction (Yoon 2002).

When life of man progress further it faces many problems and challenges by overcoming of all these problem and challenges life finds new ways and these ways shows the life peace, prosperity and development. This is the life. So the researcher will also try to overcome on the problems and find some concrete and innovative ideas by his research work. Purpose of this study is to find out agility of male intercollegiate boxers, judoks and wrestlers.

Selection of subjects

This study was related to persons of combative sports therefore the research scholar was select male sports persons participating in combative sports as boxing, judo and wrestling. In all 75 male sports persons was selected out of which 25 each was selected from the three combative sports (Boxing, Judo and Wrestling). The age of sports persons was between 18 – 28 years and only those sportspersons who participated in intercollegiate competition and residing in the Chandrapur and Gadchiroli district of Maharashtra.

Administration of test:

SEMO agility test was applied to find out agility of boxers, judokas and wrestlers. Purpose of this test is to measure agility of the subjects in maneuvering his body in forward, backward and side ward direction.

Equipment: plastic of wooden cones inches width and 12 inches in height.

Description of test: a rectangle area of feet with adequate running palace around was marked on the ground subject was stand on starting point 'A' as shown in figure with his back towards the point 'D' on the signal on the command "Ready" , "Go" the subject will start side from A to B and will pass from the outside of the corner B. he will then back pedal from B to D and pass from the inside of corner cone of B. he will them sprint forward from D to A and will pass from outside of the corner cone A. He will then back pedal from A to C and will pass from inside of the corner cone. He will than ask to sprint forward from C to B and will pass outside of the corner cone B. lastly he will than side step from B to the finish line A.

Scoring: the better of the two trials was recorded in the nearest of the 1/100th of the second as a final score.

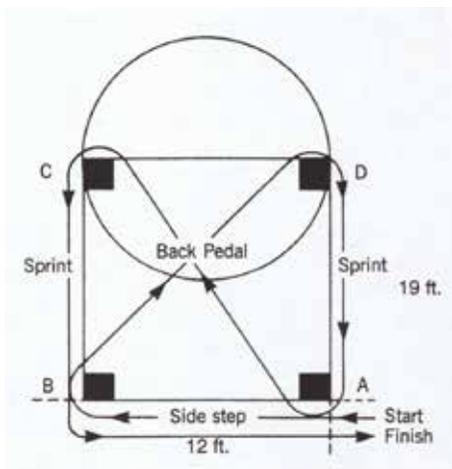


Figure – 1 Diagram of SEMO Agility Test

Analysis of Data:

For statistical analysis one way Analysis of Variance (ANOVA) was applied for comparing the agility of intervarsity male Boxers, Judokas and Wrestles. Where significant difference was observed Post Hoc test (LSD) Least Significance Difference Test was applied to difference between group. Level of significance was at .05 level.

Table – 1
Analysis of Variance (ANOVA) Mean Agility of male boxers, judokas and wrestlers

SOURCE OF VARIANCE	DF	SS	MSS	F – Value
TREATMENT	2			10.69151*
ERROR	72			

*Significant at .05 level
Tab. F_{.05} = [3.11]

Since the computed value of F (10.69) is greater than Tabulated (F_{.05} = 3.11) value, we reject the null hypothesis. Thus we are able to conclude that mean agility of male boxers, judoks and wrestlers is significantly different. To further analyze which groups is having greater mean agility pair wise mean comparison done by using Least Significant Difference test.

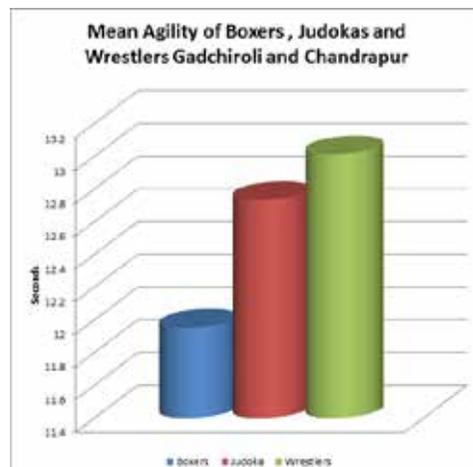
Table – 2
Pair wise mean comparison of Agility of Boxers, Judokas and wrestlers

Treatment means arranged in order to magnitude				
Boxers	Judoka	Wrestlers	Mean Difference	
11.9536	12.7336		0.78*	0.112
11.9536		13.0132	1.0596*	0.112
	12.7336	13.0132	0.2796*	0.112

*Significant at .05 level

Comparing the pair wise mean difference of means with critical difference it is evident that the mean agility of boxers is significantly better than mean agility of judoka and wrestlers. Further mean agility of judoka is also significantly better than mean agility of wrestlers. Whereas the mean agility of wrestlers was significantly lesser than the mean agility of boxers and judokas.

Figure – 2



Discussion of Findings:

Result of the study revealed that the mean agility of boxers is significantly better than mean agility of judoka and wrestlers. Further mean agility of judoka is also significantly better than mean agility of wrestlers. Whereas the mean agility of wrestlers was significantly lesser than the mean agility of boxers and judokas.

Boxing is the game of direct punching towards players need to dodge lot seriously fighting for your opponent will probably be second nature, player don't have time to think. Agility makes them dodging your second nature so it makes it easier to get behind his back and escape his face when he turns around.

Where as the agility moment of judokas and wrestlers are slower than boxers, judokas and wrestlers are more confident that the opponent hands are with contacting with player. This may lead to slower agility moments among judokas and wrestlers.

Similar study conducted by **N. Anilkumar (2013)** on the skill performances and execution of techniques in the sports such as boxing, wrestling and judo were based on the basic fitness components. The purpose of the study was to determine the existence of statistically significant difference on selected fitness components (speed, agility, power, flexibility and endurance) among boxers wrestlers and judokas. For this purpose, ninety sportsmen (30 boxers, 30 wrestlers, and 30 judokas) were selected. Their age ranged between 18 to 23 years. The selected variables were assessed using 50 metres dash, shuttle run, jump and reach, sit and reach, and Harvard step test. The data was analyzed by applying ANOVA and Scheffe S post hoc test. The result showed that there were significant difference in all the selected physical fitness components among boxers, wrestlers and judokas. The boxers showed a better capability in agility while the wrestlers were better in endurance and the judokas with greater flexibility.

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