

International Advanced Research Journal in Science, Engineering and Technology

Impact Factor 8.066

Refereed journal

Vol. 12, Issue 1, January 2025

DOI: 10.17148/IARJSET.2025.12121

SPEED ABILITY: COMPARISON PLAYERS AMONG COMBAT SPORTS

G. Shrinivas Reddy¹, Dr. Chandrakant Karad²

Research Scholar – Swami Ramanand Teerth Marathwada University, Nanded¹
Principal, College of Physical Education, Udgir²

Abstract:

Objective

The purpose of the study was to compare Speed in Power lifting, Judo and Weight Lifting.

Sample size

The 40 players were selected for sample size of each group of the study and their age ranged between 20 -25 years. Exclusion criteria were the presence of chronic medical conditions such as asthma, heart disease or any other condition that would put the subjects at risk when performing the experimental tests.

Assessment of Speed

Speed measured by using the Standing Broad Jump etc . The mean, S.Ds and ANOVA and LSD Post hoc Test was utilized the level of significant was set up at 0.05 level.

Results

The result shows significant difference of skill related abilities among three groups of Combat Sports. the findings of the study shows that Judo players was found to have good speed abilities as compare to their counterparts powerlifting Players the findings of the study shows that Judo players was found to have good speed abilities as compare to their counter parts weight lifting Players.

Keywords: Speed, Standing Broad Jump, Combat

INTRODUCTION

Speed is an important ability in sports because it gives athletes an advantage over their competitors. Speed in sports is the ability to move one's body, arms, or legs quickly to cover a distance or perform an activity. It is a major component of fitness and is important in many sports. Combat sports include boxing, Power lifting, weight lifting judo, karate, taekwondo, wrestling and mixed martial arts (MMA). Combat sports are individual semi-contact or contact sports played at competitive level where two opponents engage in a body contest of strength, speed and skill, often following traditional or agreed-upon rules. The origins of combat sports are ancient, with early forms such as wrestling mainly originated from India and boxing appearing in early civilizations, often as part of military training or religious rituals. Over the centuries, different cultures developed their own martial arts, such as karate in Japan and taekwondo in Korea. Judo is an individual popular combat sport that demands technique, tactics and physical power. From a standing position, it involves techniques that allow you to lift your opponents and drop them on their back. On the ground, this involves techniques that allow you to apply various chokeholds or joint locks to ground your opponent, controlling them and forcing them to submit. Powerlifting is a competitive strength sport some time also called combat sports that involves three attempts to lift maximum weight on three lifts: the squat, bench press, and deadlift. As in the sport of Olympic weightlifting, it involves the athlete attempting to single-lift a maximum weight of a barbell loaded with weight plates. Weightlifting is an Olympic sport, and has been contested at every Summer Olympic Games since 1920. While the sport is officially named "weightlifting", the terms "Olympic weightlifting" and "Olympic-style weightlifting" are often used to distinguish it from others.

METHODS

Sampling Method:

Purposive sampling method was used, as the researcher selected Power lifting, Judo and weight lifting players with a specific purpose.



International Advanced Research Journal in Science, Engineering and Technology Impact Factor 8.066 Refereed journal Vol. 12, Issue 1, January 2025

DOI: 10.17148/IARJSET.2025.12121

Target of population:

Three groups was targeted, Power lifting players judo and weight lifting player. 40 Power lifting players and 40 Power lifting, Judo and weight lifting players selected for this present study. All data collected in Telangana state.

Research design:

This study involves a cross sectional, comparative study of Power lifting, Judo and weight lifting player. Since no experimental groups was taken by the investigator and there was no control group so this study was conducted in a descriptive research design.

Tools of the study:

Stopwatches, still tape, electronic blood pressure device, weighing machine, stadia-meter, Spiro-meter, and health outcome questionnaires tools was used for data collection.

ADMINISTRATION OF THE TEST

Pre & post test was applying on students to measure performance related physical fitness components.

The following test will taken from students

A) SPEED: This test measured by using 50 Yard Dash Run.

50yard Dash: The purpose of the test is to measure speed. The test is suitable for both and girls.

Equipment: Area of desired length preferably on an athletic track playground or football field with a marked starting line and a finish line, two stopwatches.

Test Administration: The tester should give in advance, instructions to a group of 10-15 subjects as follows "you are required to take any position behind the starting line. Wait for the starting signal. On receiving the command Go, you are to start running as fast as possible till you reach the finish line. Warm up just before the sprint test. After then warm up, subjects preferably in pairs, are asked to take starting position behind the starting line and wait for the signal 'Go'. A separate helper with a stopwatch is required to watch each subject at the finish line. The tester gives commands Ready, Steady, Go, so that these are audible easily to subjects at the start line and the timers at the finish line. At the command Go, the timers start their respective stopwatches and the subjects start their sprints. As soon as the subjects crosses The time accurate up to 0.01 second. Only one correct trial is permitted. The subject is asked to restart the sprint in case he start before the word go or fails to start quickly at the command Go, Sometimes a gunshot may be stopwatches by the timers and sprints by the subjects especially when the sprint is for more than 40 yard.

Scoring: The time elapsed from the start to the instant, subject crosses the finish line, is the score expressed usually up to hundredth of a second.

Table-1
Mean scores and Standard Deviation of skill related abilities with respect to Speed among three groups of Combat Sports

Abilities	players	Number	Mean Scores	Standard Deviations
Speed	Power lifting	40	7.30	0.45
	Judo	40	7.55	0.58
	Weight lifting	40	7.38	0.47

As per Table-1 shows that the mean scores and standard deviations of skill related abilities with respect to Speed among three groups of Combat Sports.



International Advanced Research Journal in Science, Engineering and Technology Impact Factor 8.066 Peer-reviewed / Refereed journal Vol. 12, Issue 1, January 2025

DOI: 10.17148/IARJSET.2025.12121

Figure – 1 Shows the Mean scores and standard deviation skill related abilities with respect to Speed among three groups of Combat Sports



Table-2 Analysis of variance of skill related abilities with respect to Speed among three groups of Combat Sports.

Components	Source of Variance	SS	DF.	MSS	F- ratio
Speed	Between Groups	4.88	2	2.44	
	Within Groups	37.70	117	.32	7.62 *

^{*} Significant at .05 level.

Table-2, Indicated that statistically significant difference of skill related abilities among three groups of Combat Sports as above observed in F-ratio was 7.62 at .05 level of significance. In order to located the statistically difference of skill related abilities among three groups of Combat Sports; LSD post hoc statistical comparison test was used to compare the skill related abilities among three groups of Combat Sports

Table - 3 LSD post hoc Statistical comparison for mean difference among skill related abilities among three groups of Combat Sports

Mean Scores				
Power lifting	Judo	Weight lifting	Mean difference	C.D. at 5% level
7.30	7.55		.25	.16*
7.30		7.38	.08	.16
	7.55	7.38	.17	.16*

^{*} Significant at .05 level.

As per Table 3, shows that the LSD post hoc statistical comparison for mean difference of skill related abilities among three groups of Combat Sports.

RESULTS AND DISCUSSION

Factually, speed directly affects the power of your strike. The faster you move, the more kinetic energy you accumulate, adding power to your strikes. Meaning, if you want your punches to land harder, you'll need to increase your agility. The mean scores and the standard deviations obtained from Table 2, the highest mean score is in Judo Players (7.55) and the lowest mean score is in power lifting players (1.07) and the mean scores of the rest falls between these two sports. The sample of combat sports indicated by the standard deviation which is not higher than (0.58) in case of judo players and not lower than (0.45) in case of Power lifting. In order to find out the differences of speed among Weight lifter, power



International Advanced Research Journal in Science, Engineering and Technology

Impact Factor 8.066

Refereed journal

Vol. 12, Issue 1, January 2025

DOI: 10.17148/IARJSET.2025.12121

lifter and Jodo players; F-ratio (One way analysis of Variance with LSD Post Hoc Test) was computed for find out the differences in speed, where results of the study shows that there were significant differences in speed among Weight lifter, power lifter and Jodo players. The LSD post hoc test shows that powerlifting and weight lifting and judo and power lifting has differed in the speed ability.

CONCLUSIONS

- 1. The results indicate that statistically significant difference of skill related abilities with respect to speed between power lifting and Judo;
- 2. The findings of the study shows that Judo players was found to have good speed abilities as compare to their counterparts powerlifting Players.
- 3. The results indicate that no statistically significant difference of skill related abilities with respect to speed between power lifting and weight lifting.
- 4. The results indicate that statistically significant difference of skill related abilities with respect to speed between Weight lifting and Judo
- 5. The findings of the study shows that Judo players was found to have good speed abilities as compare to their counterparts weight lifting Players.

REFERENCES

- [1]. https://www.dimensions.com/collection/combat-sports
- [2]. Fletcher IM. The effect of different dynamic stretch velocities on jump performance. Eur. J. Appl. Physiol. 2010; 109: 491–8.
- [3]. Greenwell, Hancock, Simmons, Thorn (2015). "The effects of gender and social roles on the marketing of combat sport". Sport Marketing Quarterly. 24 (1): 19.
- [4]. Hewitt, John P. (2009).Oxford Handbook of Positive Psychology. Oxford University Press. pp. 217–224.
- [5]. Hill PL, Roberts BW,(2010) "Propositions for the Study of Moral Personality Development". CurrDirPsychol Sci. 2010 Dec 14;19(6):380-383.
- [6]. Hill, R. A, & Barton, R. A. (2005). Red enhances human performance in contests. Nature, 435, 293.
- [7]. https://jvavolleyball.org/3-reasons-why-volleyball-players-need-strength-conditioning/
- [8]. Ko, Y. J., Kim, Y. K., & Valacich, J. (2010). Martial arts participation: Consumer motivation. International Journal of Sports Marketing & Sponsorship, 11(2), 105-123.
- [9]. Lystad, Reidar (2015). "Epidemiology of injuries in full-contact combat sports". Australasian Epidemiologist. 22
- [10]. Marques, M.C. Physical fitness qualities of professional volleyball players: determination of position differences. Journal of Strength and Conditioning Research, 2009(23), 1106–1111.
- [11]. Menzel, H.J., Chagas, M.H., Szmuchrowski, L.A., et al. Usefulness of the jump-and-reach test in assessment of vertical jump performance. Perceptual and Motor Skills 2010(110), 150–158.
- [12]. Perrier ET, Pavol MJ, Hoffman MA. The acute effects of a warm-up including static or dynamic stretching on countermovement jump height, reaction time, and flexibility. J. Strength Cond. Res. 2011; 25: 1925–31.
- [13]. Power K, Behm D, Cahill F, et al. An acute bout of static stretching: effects on force and jumping performance. Med. Sci. Sports Exerc. 2004; 36: 1389–96.
- [14]. Sheppard, J.M., Cronin, J.B., Gabbet, T.J., et al. Relative importance of strength, power, and anthropometric measures to jump performance of elite volleyball players. Journal of Strength and Conditioning Research, 2008(22), 758–765.