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## Comparative study of selected physical fitness variables of university gold medalist judokas and boxers

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### Abstract

The present survey type study was conducted on silver medalist in university level judo and boxing championship. For the present study subjects were taken from the all respective weight categories of judo and boxing. The selective sampling technique was used in the present study. Sample size of the study was 32 players (judo, n=16, boxing, n=16) these selected subjects were undergone to the AAPHER youth physical fitness test battery to establish their level of physical fitness and its comparison. The AAPHER youth physical fitness test battery was composed of seven test items namely pull-ups, sit-ups, standing broad jump, shuttle run, 50 yard dash, soft ball throw, 600 yard run/ walk & administered on the selected subjects after the tournament. The obtained raw data was statistically analyzed by employing the "t" test. The results drawn from the present study indicates that the boxers have got better arm, abdominal and leg strength than judokas. Boxers were more speedy than judokas and the boxers had more endurance than judokas.

**Keywords:** Physical fitness, pulse rate, non-sportsmen, Sirsa

### Introduction

Physical fitness refers to the organic capacity of the individuals to perform the normal task of daily living without tiredness or fatigue having reserve of strength and energy available to meet satisfactorily and emergency demands suddenly placed upon him. It is the ability to endure, to bear up, to with stand stress, to carry on in circumstances where as unfit person could not continue, and is a major basis for good health and well-being. Judo and Boxing is a combative sports activity involving individual's physical efforts during training and competition. Therefore, judo and boxing requires not only technical and tactical skill but also great deal of physical fitness. Judokas and boxers are characterized by high speed of arm & shoulder strength, abdominal strength, explosive strength, agility, speed endurance. These characteristics are required to perform such technique epon seo nage, tani toshi, ouchi gari, in Judo and straight punch, upper cut, in Boxing, especially in game offense. It has been evaluated that explosive strength, agility, endurance are necessary to excel in judo and boxing. Therefore, the purpose of the study was to establish & compare of selected components of physical fitness between the judokas and boxers, those who secure silver medal in university championship of Himachal Pradesh in their respective weight category.

### Objectives

To study had compare the physical fitness i.e. pull ups, bent sit ups, S.B.J., shuttle run, fifty yard dash, soft ball throw and 600 yard run/walk of university level silver medalist of judokas and boxers of Himachal Pradesh.

### Hypothesis

Investigator had formulated the null hypothesis for the present study that there will be no significant difference lies between university level silver medalist Judokas and Boxers in the seven components of physical fitness.

### Procedure

To achieve the purpose of present study the selective sampling technique was used. Judokas and Boxers who secured silver medal in the university championships were taken as subjects.

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AAPHER youth physical fitness test battery was used to obtain the level of physical fitness. Physical fitness test battery was composed of seven test items namely pull-ups, sit-ups, standing broad jump, shuttle run, 50 yard dash, soft ball throw and 600yard run/walk and administered on the selected subjects at Himachal Pradesh University play field.

Collected raw data was statistically analyzed by employing the “t” test to establish the difference between the level of physical fitness of judokas and boxers of university silver medalists. The level of significance to establish the difference was set at 0.01 for df 30.

**Table 1.1:** Comparison of selected variables of physical fitness between university silver medalist judokas and boxers.

S. No	Items	Mean Judokas	SD	Mean Boxers	SD	Mean Difference	N	SED	df	“t”
1.	Pull –Ups	6.6250	.74402	7.1250	.64087	.50000	16	.34718	14	1.440
2.	Sit –Ups	9.3750	.91613	10.000	.53452	.62500	16	.37500	14	1.667
3.	S.B.J	1.9313	.02588	2.0000	.04342	.06875	16	.01787	14	3.847
4.	Shuttle Run	8.2425	.27453	7.9913	.02850	.25125	16	.09758	14	2.575
5.	50 Yard dash	8.3700	.26881	7.8750	.21896	.49500	16	.12258	14	4.038
6.	Soft ball throw	19.2875	.30326	20.0125	.51669	.72500	16	.21182	14	3.423
7.	600 Yard R/W	3.4400	.27061	2.9850	.31478	.45500	16	.14676	14	3.100

0.01level of significance “t” < 2.97.

## Discussion

According to table no.1. The mean value of pull-ups performed by Judokas is 5.6250 and Boxers is 6.6250. The mean difference is 1.0000. The standard deviation in respect of Judokas is .74402 and Boxers is .74402. The standard error difference is .37201. The calculated “t” value is 2.688 for df 14. The calculated “t” value is statistically significant at 0.01 level of significance when compared with table value of “t”. On the basis of obtained results boxers exhibit better arm and shoulder strength than judokas

The formulated hypothesis had been rejected on the basis of obtained results.

Sr. no. 2 reveals that the mean value of sit-ups performed by Judokas is 9.5000 and Boxers is 10.3750. The mean difference is .87500. The standard deviation in respect of Judokas is .53452 and Boxers is .51755. The standard error difference is .26305. The calculated “t” value is 3.326 for df 14. The calculated “t” value is statistically significant at 0.01 level of significance when compared with table value of “t”. On the basis of obtained results boxers exhibit better abdominal strength than judokas.

The formulated hypothesis had been rejected on the basis of obtained results.

Sr.no.3 reveals that the mean value of standing broad jump performed by Judokas is 19.025 and Boxers is 2.0713. The mean difference is .16875. The standard deviation in respect of Judokas is .04833 and Boxers is .14486. The standard error difference is .05399. The calculated “t” value is 3.126 for df 14. The calculated “t” value is statistically significant at 0.01 level of significance when compared with table value of “t”. On the basis of obtained results boxers exhibit better explosive strength than judokas

The formulated hypothesis had been rejected on the basis of obtained results.

Sr. no.4 reveals that the mean value of shuttle run performed by Judokas is 8.5400 and Boxers is 7.9150. The mean difference is .62500. The standard deviation in respect of Judokas is .27339 and boxers is .32768. The standard error difference is .15088. The calculated “t” value is 4.142 for df 14. The calculated “t” value is statistically significant at 0.01 level of significance when compare with table value of “t”. On the basis of obtained results boxers exhibit better agility than judokas.

The formulated hypothesis had been rejected on the basis of obtained results.

Sr. no. 5 reveals that the mean value of 50 yard dash performed by judokas is 8.5200 and boxers is 7.7600 the

mean difference is .76000. The standard deviation in respect of judokas is .26881 and boxers is .39086 the standard error difference is .16772 the calculated “t” value is 4.531 for df 14. The calculated “t” value is statistically significant at 0.01 level of significance when compared with table value of “t”. On the basis of obtained results boxers exhibit better speed than judokas.

The formulated hypothesis had been rejected on the basis of obtained results.

Sr. no.6 reveals that the mean value of soft ball throw performed by Judokas is 19.3625 and Boxers is 20.2150. The mean difference is .85250 the standard deviation in respect of Judokas is .11573 and boxers is .30720. The standard error difference is .11606. The calculated “t” value is 7.345 for df 14. The calculated “t” value is statistically significant at 0.01 level of significance when compared with table value of “t”. On the basis of obtained results boxers exhibit better arm and shoulder strength than judokas.

The formulated hypothesis had been rejected on the basis of obtained results.

Sr. no.7 reveals that the mean value of 600 yard run/walk performed by Judokas is 3.5900 and Boxers is 2.9675. The mean difference is .62500. The standard deviation in respect of Judokas is .27061 and boxers is .13047. The standard error difference is .10621. The calculated “t” value is 5.861 for df 14. The calculated “t” value is statistically significant at 0.01 level of significance when compared with table value of “t”. On the basis of obtained results boxers exhibit better endurance than judokas.

The formulated hypothesis had been rejected on the basis of obtained results.

## Conclusion

Findings of the study indicate that the boxers had got better arm and shoulder strength, abdominal strength and leg explosive strength than judokas and on the basis of obtained results the boxers were more agile, more speedy than judokas and the boxers had better endurance than judokas.

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