

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

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Abstract

The present survey based study was conducted on gold medalist in university championship of judo and boxing game and respective weight categories were taken as subjects for the present study. The selective sampling technique was used in present study. Sample size of the present study was 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, leg strength than judokas. Boxers were speedier than judokas and the boxers had more endurance than judokas.

Keywords: physical fitness, judokas and boxers

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 & explosive strength, shoulder strength, abdominal strength, endurance, explosive strength, agility. 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 gold medal in university championship of Himachal Pradesh in their respective weight category.

Objectives

Objectives had been formulated to find out the physical fitness

performance of endurance, explosive strength, agility, speed, between university gold medalist judokas and boxers and its comparison.

Hypothesis

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

Procedure

To achieve the purpose of present study the selective sampling technique was used i.e. judokas and boxers who secured gold medal in the university championships were taken as subjects. AAPHER youth physical fitness test battery was used to establish 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, 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 gold medalists. The level of significance to establish the difference was set at 0.01 for df 14 and the value of “t” is 2.97.

Table 1: Comparison of selected variables of physical fitness between university gold medalist judokas and boxers

Sr.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	10.0000	.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 of Findings

According to table no.1. The mean value of pull-ups performed by Judokas is 6.6250 the mean value of pull-ups performed by Boxers is 7.1250. The mean difference is .50000. The standard deviation in respect of Judokas is .74402 and Boxers is .64087. The standard error difference is .34718. The calculated “t” value is 1.440 for df 14. The calculated “t” value is statistically not 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 accepted on the basis of obtained results

According to table no.1. The mean value of sit-ups performed by Judokas is 9.3750 the mean value of sit-ups performed by Boxers is 10.000. The mean difference is .62500. The standard deviation in respect of Judokas is .91613. And Boxers is .53452. The standard error difference is .37500. The calculated “t” value is 1.667 for df 14. The calculated “t” value is statistically not 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 accepted on the basis of obtained results

According to table no.1. The mean value of standing broad jump performed by Judokas is 1.9313 the mean value of standing broad jump performed by Boxers is 2.000. The mean difference is .06875. The standard deviation in respect of Judokas is .02588. And Boxers is .04342. The standard error difference is .01787. The calculated “t” value is 3.847 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

According to table no.1. The mean value of shuttle run performed by Judokas is 8.2425 the mean value of shuttle run performed by Boxers is 7.9913. The mean difference is .25125. The standard deviation in respect of Judokas is .27453 and Boxers is .02850. The standard error difference is .09758. The calculated “t” value is 2.575 for df 14. The calculated “t” value is statistically not significant at 0.01 level of significance when compared with table value of “t”. On the basis of obtained results boxers exhibit better agility than judokas

The formulated hypothesis had been accepted on the basis of obtained results

According to table no 1. The mean value of 50 yard dash performed by judokas is 8.3700 the mean value of 50 yard dash performed by boxers is 7.8750 the mean difference is .40500. The standard deviation in respect of judokas is .26881 and boxers is .21896 the standard error difference is .12258 the calculated “t” value is 4.038 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 boxer’s exhibit better speed than judokas.

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

According to table no.1. The mean value of soft ball throw performed by Judokas is 19.2875 the mean value of soft ball throw performed by Boxers is 20.0125. The mean difference is -.72500 the standard deviation in respect of Judokas is .30326 and boxers is .51669. The standard error difference is .21182. The calculated “t” value is 3.423 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

According to table no.1. The mean value of 600 yard run/walk performed by Judokas is 3.4400 the mean value of 600 yard run/walk performed by Boxers is 2.9850. The mean difference is .45500. The standard deviation in respect of Judokas is .27061 and boxers is .31478. The standard error difference is .14676. The calculated “t” value is 3.100 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, abdominal and leg strength than judokas and on the basis of obtained results the boxers were speedier than judokas and the boxers had better endurance than judokas.

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