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Research Paper :

Effect of maximal power training on speed

K. BHUVANENDHIRAN AND K. KRISHNASAMY

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See end of the article for authors' affiliations

Correspondence to:

K. BHUVANENDHIRAN
Department of Physical Education and Sports Sciences, Annamalai University, Annamalai Nagar, CHIDAMBARAM (T.N.) INDIA

ABSTRACT

The purpose of the study was to find out the effect of maximal power training on Speed. To achieve this purpose of the study, thirty male students studying in the Department of Physical Education and Sports Sciences, Annamalai University, Annamalai nagar, were selected as subjects at random. The age group was between 18 -22 years. The subjects were divided into two equal groups of fifteen each Group I underwent maximal power training programme and group II acted as control, which did not participate in any special training programme apart from regular physical activities as per the curriculum. Speed was the variable and was measured by 50 mts dash test. All the subjects were tested on 'speed prior to and immediately after the training programme. The analysis of covariance was used to analyze the significant difference, if any, among the groups. 0.05 level of confidence was fixed as the level of significance to test the "F" ratio obtained by the analysis of covariance, which was considered as appropriate. The results of the study revealed that there was significant difference among, maximal power training group and control group on speed. It was found that there was a significant improvement on speed due to maximal power training.

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The modern age is an age of computer. Man has been running over, since he had to hunt for survival. Computer was invented by man for the comforts of his life. He has caused man to depend on it completely. This has lead man to reduce his physical efficiency. Training in sports is essentially on education process. The athlete is instructed and educated by the trainers the physical education teachers and coaches. Training depends upon the various aspects and is a positive quality closely related to exercise and good health habits. It is an important and valuable pulse in modern society. For the last few decades, research has been conducted to develop a better training method to improve motor fitness component.

(MacDougall *et al.,* 1984), Reports indicate that maximal power training may improve motor performance skill (Lillegard *et al.,* 1997), stationary weight are used for the purpose of increasing muscular Strength,muscular endurance and power, through which skills can be improved strength may be defined as the neuro-muscular capability to over come an external and internal pwer training. It is fundamental to all sports and games.

METHODOLOGY

The purpose of the study was to find out the maximal power training on speed of university men students. To achieve this purpose of the study, thirty men students of the Department of Physical Education and Sports Sciences, Annamalai University, Annamalai Nagar, Tamil Nadu were selected as subjects at random. The selected subjects were divided into two equal groups of fifteen subjects each, such as maximal power training group and control group. The group I underwent maximal power training programme for three days per week for twelve weeks. And Group II acted as control group who did not participation any special training programmes apart from their regular physical education activities as per their curriculum. The variable as speed was selected as criterion variable and it was measured by using 50mts run. All the subjects of two groups were tested on selected criterion variable at prior to and immediately after the training programme. The analysis of covariance was used to analyse the significant difference, if any between the groups. The level of significance to test the 'F' ratio obtained by the analysis of covariance was tested at 0.05 level of significance, which was considered as an

Table 1: Analysis of covariance of the data on speed of pre and post tests scores of intensive maximal power training and control groups

Test	Maximal power training group	Control group	Source of variance	Sum of squares	df	Mean squares	Obtained 'F' ratio
Pre test							
Mean	8.13	8.00	Between	0.08	1	0.08	0.10
S.D.	0.89	0.80	Within	22.00	28	0.79	
Post test							
Mean	7.33	7.99	Between	2.97	1	2.97	3.96*
S.D.	0.91	0.75	Within	20.91	28	0.75	
Adjusted post test							
Mean	7.36	7.92	Between	4.52	1	4.52	226.00*
			Within	13.84	27	0.02	

* indicates significance of value at P=0.05 level of confidence

appropriate.

OBSERVATIONS AND DISCUSSION

The analysis of covariance on speed of the pre and post test scores of intensive maximal power training group and control group have been analyzed and presented in Table 1.

Table 1 shows that the pre-test mean values on speed of maximal power training group were 8.13 and 8.00, respectively. The obtained 'F' ratio of 0.10 for pre-test scores was less than the table value of 4.20 for df 1 and 28 required for significance at .05 level of confidence on speed. The post-test mean values on speed of maximal power training group and control group were 7.33 and 7.99 respectively. The obtained "F" ratio of 3.96 for post-test scores was more than the table value of 4.20 for df 1 and 28 required for significance at .05 level of confidence on speed.

The adjusted post-test means of maximal power training group and control group were 7.36 and 7.92, respectively. The obtained "F" ratio of 226 for adjusted post-test means was greater than the table value of 4.22 for df 1 and 27 required for significance at 0 .05 level of confidence on speed.

The results of the study indicated that there was a significant difference between the adjusted post-test means of maximal power training group and control group on speed. The results are in conformation with the findings of studies conducted earlier by Paulsen *et al.,* (2003) and Rhea *et al.,* 2002).

Conclusion:

Based on the results of the study, the following conclusions were drawn.

– There was a significant difference between the maximal power training group and control group on speed.

– There was a significant improvement on speed due to maximal power training.

Authors' affiliations:
K. KRISHNASAMY, Department of Physical and Sports Sciences, Annamalai University, Annamalai Nagar, CHIDAMBARAM (T.N.) INDIA

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