ISSN: 2230-9926

Available online at http://www.journalijdr.com

IJDR

International Journal of DEVELOPMENT RESEARCH

International Journal of Development Research
Vol. 4, Issue, 8, pp. 1480-1481, August, 2014

Full Length Research Article

"COMPARATIVE EFFECT OF PROGRESSIVE TRAINING WITH AND WITHOUT WEIGHTS ON SELECTED PHYSICAL FITNESS COMPONENTS AND PHYSIOLOGICAL VARIABLES AMONG SCHOOL BOYS"

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ARTICLE INFO

Article History:
Received 23rd May, 2014
Received in revised form
04h June, 2014
Accepted 27th July, 2014
Published online 05th August, 2014

Key words:
Cardiovascular,
Experimental,
Endurance,
Coastal-Calicut.

ABSTRACT

Ninety boys in the age group of 15 to 18 years of Kunhali Marakkar Higher Secondary School, Coastal-Calicut were selected at random and were divided randomly into three equal groups namely Progressive training group –A with weights, Progressive training group –B without weights and control group -C. The experimental groups participated in the training programme for a period of 15 weeks. During this period, the control group was let off without any training. The data were collected on selected Physical Fitness variables of Abdominal muscular strength and endurance, Agility, Flexibity, Cardiovascular endurance and VO2 max respectively before training (pre-test) as well as after 15 weeks of training (post-test). Analysis of covariance was used to analyse the data. The results of the present study has revealed that there was a significant difference among the weight training group, without weight training group.

INTRODUCTION

Training with weights is becoming an increasingly recognized as the key method of training for sports and games for the development of good physique. It weight training is use of resistance other than the strengthen the muscle and the internal organs and promotes the type of health and vigor that last a life time in a way that no specialized training can match. The weight training is one of the factors in improving the speed, agility, strength endurance, flexibility, body components and anthropometric measurements. The essentials of weight training (strength training) and regularity and gradual increase in training intensity (principles of over loading) is supported by good nutrition and adequate rest. Unlike endurance training, weight training does not spend many calories. As such, its role of reducing body weight is limited; on the other hand, it reduces weight due to muscle hypertrophy. Strength training does not mean one will lose flexibility or become muscle bound. Studies on Olympic athletes have shown that only the gymnasts have better flexibility than the weight lifters. Weight training does not slow down muscular movement. It has also been established that increase in muscular speed (Explosive power) accompanies an increase in muscular strength.

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MATERIALS AND METHODS

The methodology for the study was to determine the comparative effect of progressive training with and without weights on selected physical fitness components among students from coastal area. The subjects for the study were selected from the students of Kunhali-marakkar higher-secondary school, Calicut. The 90 subjects aged between fifteen to eighteen years were randomly assigned to three groups of thirty each, experimental groups A and B while group C acted as the control group. The experimental treatment of fifteen weeks of progressive weight training were given to experimental group A while training without weights were assigned to group B and control group was let off freely. A pilot study was conducted before the experimentation. The pre and post tests for all groups were collected and resultant were analysed

RESULTS AND DISCUSSION

The Analysis of co-variance (ANCOVA) and Scheffe's post-hoc test on the data abdominal muscular endurance of

Table 1. Analysis of Co-Variance of the Means of two Experimental Groups and he Control Group in Abdominal Muscular Endurance

(scores in numbers)

	GROUP A	GROUP B	GROUP C	SOURCE OF VARIANCE	SUM OF SQUARES	df	MEAN SQUARES	OBTAINED F	P VALUE
Pre test Mean	30.7000	33.9000	31.4000	Between	169.800	2	84.900	1.178	.313
				Within	6268.200	87	72.048		
Post test Mean	39.1333	33.9000	31.4000	Between	934.422	2	467.211	6.724	.002
				Within	6045.367	87	69.487		
Adjusted post	40.405	32.041	31.987	Between	.1391.792	2	695.896	1289	.000
Test Mean				Within	46.412	86	.540		
Mean Off	8.4333	0	0	Between					
				Within					

Table F ratio at 0.05 level of confidence for 2 and 87(df)= 3.05,2 and 87(df) =3.05

Table 2. Cheffe's Post-Hoc Test for Abdominal Muscular Endurance

GROUP A	GROUP B	GROUP C	MEAN DIFFERERENCE	REQUIRED CI	P VALUE
39.1333	33.9000		5.23333	2.15232	.057
39.1333		31.4000	7.73333	2.15232	.002
	33.9000	31.4000	2.50000	2.15232	.512

experimental and control have been analyzed and shown in the below tables.

DISCUSSION

Abdominal muscular endurance

The abdominal muscular endurance among coastal area boys students was examined with the bend knee sit-ups. No significant variation was detected in abdominal muscular endurance of the students selected for the weight training group – I(30.7000) and non weight training group II (33.9000) compared to control group (31.4000) during the pre test. In post- test significant improvement was noticed in abdominal muscular endurance of the experimental group I showed highly significant improvement in the abdominal muscular endurance (39.1333), followed by without weight training group-I (33.9000) with reference to control (31.4000) during post-test. The post- test was adjusted then similar results were obtained weight training group I showed highly significant improvement in the abdominal muscular endurance (40.405), followed by without weight training –II (32.041) with reference control (31.987).

Conclusions

Hence it was concluded that weight training exercise may improve abdominal muscular endurance of coastal area boys students.

REFERENCES

Charles A. Bucher and William F. Prentice, "Fitness college and life, "(Toranto: C.V. Moby Company, 1985),p.27.

Ajmer singh, et al., "Essentials of physical education," (New Delhi: Kalyan Publishers, 2003). pp. 9-24

Berger, R. "Comparison of the Effect of various Weight Training Loads on Health", Research Quarterly, 36:41, 1965.

Bunn, John W. Weight Training in Sports and Physical Education Washington D.C. : AAHPER,1962.

Kraemer W.J. "Weight Training: What You Don't Know Will It hurt you", *Journal for Health, Physical Education, Recreation and Dance,* (1983), 5.

Leighton, J.R. *Progressive Weight Training,* (New York: The Ronald Press Company, 1961), 17.

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