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INFLUENCE OF PHYSICAL TRAINING PROGRAMME ON SELECTED PHYSICAL FITNESS COMPONENTS AMONG INTER-COLLEGIATE PLAYERS

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INFLUENCE OF PHYSICAL TRAINING PROGRAMME ON SELECTED PHYSICAL FITNESS COMPONENTS AMONG INTER-COLLEGIATE PLAYERS

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ABSTRACT

The purpose of the study was to determine the influence of physical training on selected physical fitness components among inter-collegiate players. In order to achieve the purpose of this study the researcher has selected 30 inter-collegiate players from Sourashtra College, Madurai, Tamilnadu, India at random and their age ranged from 18 to 25 years. The subjects were divided into two equal groups. The study was formulated as a true random group design, consisting of a pre-test and post-test. The subjects (n=30) were randomly assigned to two equal groups of fifteen each. The groups were assigned as experimental group and control group in an equivalent manner. Experimental group participated the physical training for a period of twelve weeks and the post-tests were conducted. The significant differences between the means of experimental group and control group for the pre-test and post-test scores were determined by Analysis of co-variance. The level of significance was fixed at 0.05 level of confidence for the degree of freedom 1 and 27. The physical training group achieved significant improvement on all the physical variables namely speed and strength.

KEYWORDS: Physical Training, Physical Fitness, College Players.

INTRODUCTION

Physical fitness is the ability to carry out daily tasks with vigour and alertness, without undue fatigue and with ample energy to enjoy leisure time pursuits and to meet foreseen emergencies. Perhaps the nature of physical fitness can be understood in terms of its components which include speed, strength, endurance, power, agility, balance, coordination, flexibility and the most important and complex of them is cardio respiratory endurance. While these components are inter-related and identifiable, they are not discrete; each contributes an essential element of physical fitness. Physical fitness is the capacity of the heart, blood vessels, lungs, and muscles to function at optimum efficiency. In previous years, fitness was defined as the capacity to carry out the day's activities without undue fatigue. Automation, increased leisure time, and changes in lifestyles following the industrial revolution meant this criterion was no longer sufficient. Optimum efficiency is the key. Physical fitness is now defined as the body's ability to function efficiently and effectively in work and leisure activities, to be healthy, to resist hypo kinetic diseases, and to meet emergency situations.

METHODOLOGY

The purpose of the study was to determine the influence of physical training on selected physical fitness components among inter-collegiate players. In order to achieve the purpose of this study the researcher has selected 30 inter-collegiate players from Sourashtra College, Madurai, Tamilnadu, India at random and their age ranged from 18 to 25 years. The subjects were divided into two equal groups. The study was formulated as a true random group design, consisting of a pre-test and post-test. The subjects (n=30) were randomly assigned to two equal groups of fifteen each. The groups were assigned as experimental group and control group in an equivalent manner. Experimental group participated the physical training for a period of twelve weeks and the post-tests were conducted. The significant differences between the means of experimental group and control group for the pre-test and post-test scores were determined by Analysis of co-variance. The level of significance was fixed at 0.05 level of confidence for the degree of freedom 1 and 27.

ISSN NO: 1021-9056

RESULTS

TABLE – I

COMPUTATION OF MEAN AND ANALYSIS OF COVARIANCE OF SPEED OF EXPERIMENTAL AND CONTROL GROUPS

Test	Control (sec)	Experimental (sec)	Sum of variance	Sum of squares	df	Mean square	F
Pre test mean	7.80	8.21	BG	1.24	1	1.24	1.38
			WG	25.08	28	0.89	
Post test mean	7.86	7.72	BG	0.14	1	0.14	0.28
			WG	14.34	28	0.51	
Adjusted post mean	7.99	7.59	BG	1.14	1	1.14	7.54*
			WG	4.09	27	0.15	

* Significant at 0.05 level

The above table indicates the adjusted mean value of speed of control and experimental groups were 7.99 and 7.59 respectively. The obtained F-ratio of 7.54 for adjusted mean was greater than the table value 4.21 for the degrees of freedom 1 and 27 required for significance at 0.05 level of confidence. The result of the study indicates that there was a significant difference among experimental and control groups on speed. The above table also indicates that both pre and post test means of control and experimental groups do not differ significantly. The pre, post and adjusted mean values of speed of both control and experimental groups are graphically represented in the Figure-I

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FIGURE – I

BAR DIAGRAM SHOWING THE MEAN VALUES OF PRE-TEST, POST-TEST AND ADJUSTED POST MEANS OF CONTROL AND EXPERIMENTAL GROUPS ON SPEED

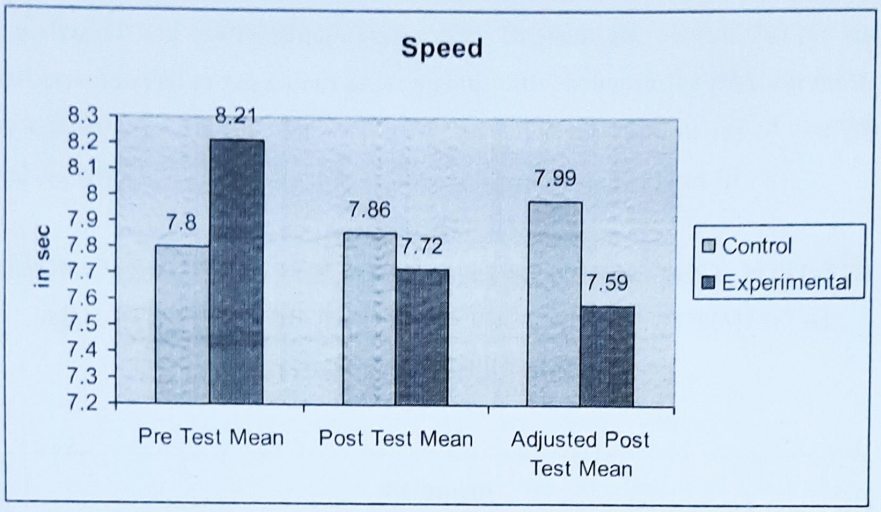


TABLE -II

COMPUTATION OF MEAN AND ANALYSIS OF COVARIANCE OF STRENGTH OF EXPERIMENTAL AND CONTROL GROUPS

Test	Control (nos)	Experimental (nos)	Sum of variance	Sum of squares	df	Mean square	F
Pre test mean	4.20	4.40	BG	0.30	1	0.30	0.60
			WG	14.00	28	0.50	
Post test mean	4.06	6.26	BG	36.30	1	36.30	73.29*
			WG	13.86	28	0.49	
Adjusted post	4.11	6.22	BG	32.73	1	32.73	79.47*
			WG	11.12	27	0.41	

ISSN NO: 1021-9056

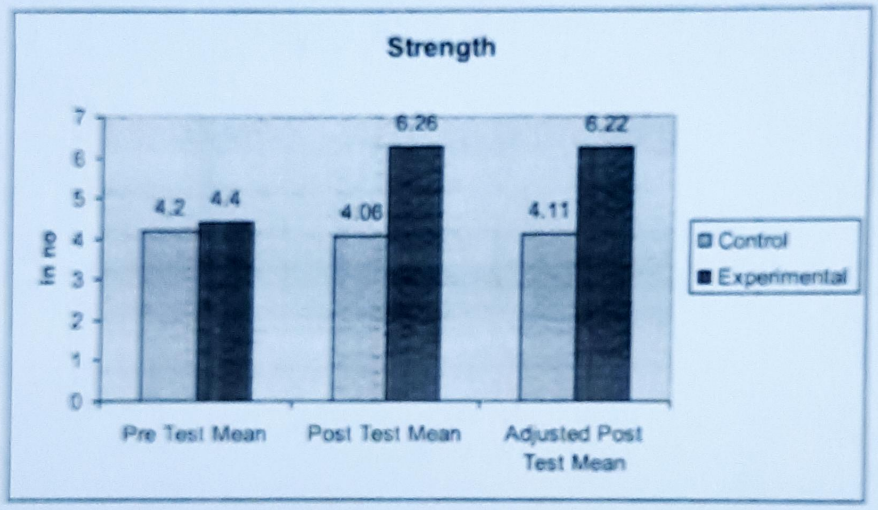
mean							

* Significant at 0.05 level

The above table indicates the adjusted mean value of strength of control and experimental groups were 4.11 and 6.22 respectively. The obtained F-ratio of 79.47 for adjusted mean was higher than the table value 4.21 for degrees of freedom 1 and 27 required for significance at 0.05 level of confidence. The result of the study indicates that there was a significant difference among experimental and control groups on strength. The table also reveals that pre test mean of control and experimental group do not differ significantly, however the post test mean of above said groups differ significantly. The pre, post and adjusted mean values of strength of both control and experimental groups are graphically represented in the Figure-II

FIGURE – II

BAR DIAGRAM SHOWING THE MEAN VALUES OF PRE-TEST, POST-TEST AND ADJUSTED POST MEAN OF CONTROL AND EXPERIMENTAL GROUPS ON STRENGTH



CONCLUSION

1. The physical training group achieved significant improvement on all the physical variables namely speed and strength.

ISSN NO: 1021-9056

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