



Study of Some Selected Exercise Programme for the Promotion of Motor Fitness Components Required In High Jump Performance

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ABSTRACT

Motor Fitness has direct relevance to performance in sports. It enable an individual to participate in games and sports with greater muscular power, speed, agility, flexibility and coordination and it makes him of attaining good performance in sports. Specific training for the development of required specific motor skill is now become a common phenomenon.

It is therefore to find out utility of specific training programme for the promotion of Motor fitness components which are commonly required in High Jump skill. With this purpose in mind the following study was under taken and executed. Initial test was conducted on experimental and control group for measuring the four components of Motor Fitness viz. Strength, Power, Agility and Flexibility and performance in High Jump. After imparting the selected exercise programme for the period of six weeks, final test was conducted and it was observed that the selected exercise can cause significant improvement in Motor Fitness components as well as performance in High Jump event.

KEYWORDS : Motor Fitness, High Jump Performance, selected exercise Programme.

INTRODUCTION

The term motor fitness was introduced during World War II as the test that could be given quickly to many subjects with a minimum of equipment were constructed for use by various branches of the Armed forces. Actually motor fitness is a limited aspect of general motor ability, with emphasis placed on the underlying element of vigorous physical activity, but does not include neuromuscular coordination involved in motor skill. Motor fitness, general motor ability and physical fitness are interrelated terms. The basic motor fitness components are muscular strength, muscular endurance and circulatory-respiratory endurance. Muscular power, agility, speed and flexibility are added to compare motor fitness.

Today coaches are continuously confronted with task of improving the performance of the athlete with the help of specific training programme. Motor fitness has direct relevance to performance in sports. It enables an individual to participate in games and sports with greater muscular power, speed, agility, flexibility, coordination and reaction time and it turn makes him capable of attaining good performance in sports.

Some of the study emphasis on development of muscular power and strength is of prime importance to develop the performance of an athlete in achieving maximum distance in jumps and throws. In recent years High jump has become more aggressive and faster event in athletics. It requires a high degree of muscular strength, power and flexibility etc. Now a day's various specific training methods are developed for attaining the high performance in specific skills. It is therefore interesting to find out utility of specific training programme for the promotion of motor fitness components. With this purpose in mind the following design was chalked out and executed.

MATERIALS AND METHOD

Sixty students of age 14-16 years were selected for this study. They were equally distributed in two groups namely A & B. Group A was experimental group and group B was control one. Initial test was conducted on all the two groups for measuring the four motor fitness component viz. Strength, Power, Agility, and flexibility. Performance of High jump was recorded before employing the exercise programme. For measuring the strength AASPER's strength test was selected and number of sit-up was recorded. For measuring the Power 'Standing Broad Jump' test was selected. Motor ability test and sit and reach test was selected for measuring the Agility and Flexibility factors. Pre and Post training Performance of High Jump was recorded. After having the initial test of all the groups, selected exercise programme including Crossing Jump, Depth Jump, Skipping, Barrier Hop, Spring Board Jump, Leg Push Off, High Knee Action, Medicine Ball Throw, Both Leg Ankle Hopping and 30 Mt. Stride was imparted for the duration of six weeks. After the expiry of training period the final test was conducted on experimental and control groups & readings were recorded as per initial test. Data of both the tests was processed through statistical procedure.

ANALYSIS AND INTERPRETATION OF DATA

After analysing the data significant improvement in strength (Sit-up) was observed in experimental group. Difference of mean of experimental group was found significant whereas mean difference of control group was not significant. To know whether the score was significant or not, under the null hypothesis t-test was applied. (See Table No. 1)

Table No. 1. Comparison between Pre and Post Training Performance of Strength Items.

Components	Group	Mean of Initial Score	Mean of Final Score	Difference of Mean	Remarks	Cal't'
Strength	A	25.63	40.00	16.37	Significant diff	3.68
	B	22.13	21.63	0.5	Not Signi.	0.00
Power	A	5.64	5.94	0.30	Significant diff	3.73
	B	5.07	5.7	0.00	Not Signi.	0.00
Agility	A	33.00	33.12	0.12	Significant	4.22
	B	32.87	30.18	2.69	Not Signi.	1.32
Flexibility	A	1.90	2.96	1.06	Significant	8.12
	B	1.67	1.63	0.04	Not Signi.	.068

The improvement in the performance of agility, flexibility, and Power was also found in experimental group. Difference of mean of experimental group was found significant whereas mean difference of control group was not significant. To know whether the score was significant or not, under the null hypothesis t-test was applied.

Regarding the performance of High Jump, training of specific exercise has cause improvement in performance of experimental group. After comparing the mean gain of control group and experimental group it was found that the training improves the total motor fitness of the subject significantly. The null hypothesis tested by applying 't' test at .000 ($p < 0.05$) level. (See Table No. 2)

Table No.- 2. Comparison of Mean Gain in High Jump Performance between Experimental and Control Group

Group	Mean of Initial Score	Mean of Final Score	Mean Gain	Mean Difference	Cal't'	Remark
A	96.50	99.83	3.33	6.166	5.362	Significant .000 $P < 0.05$
B	92.66	89.83	-2.83			

CONCLUSIONS

Post-training values indicating improvement of Motor fitness components of Experimental Group. When compared with the same values of control group have shown remarkable improvement in their original values therefore it may be inferred that the Selected exercise Programme can cause significant improvement in the Motor fitness factors of the subjects under study.

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