



## THE EFFECT OF A SPECIFIC TRAINING PACKAGE ON LONG JUMP PERFORMANCE OF COLLEGE LEVEL ATHLETES.

### Physical Education

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### ABSTRACT

A specific Training Package was administered on college level athletes to know its effect on Long jump performance. It was ascertained that the 6 weeks training package enhances the long jump performance of college level athletes.

### KEYWORDS

Specific training package, long jump.

Sports training refer to specialized strategies and methods of exercise used in various sports to develop players and athletes and prepare them for performing in sporting events. There are now a diverse range of sports training methods to be found.

**Specific Training Package:** A Training Package is a set of endorsed guidelines used to recognize and assess the skills and knowledge people need to perform effectively in the workplace. Specific training package means a systematically and scientifically prepared programme which consists of conditioning exercises, physical activities, drills and tactical maneuvers designed to improve the physical fitness, techniques and playing ability of the players.

Investigating the effect of a specific conditioning programme for 6 weeks specially designed for developing speed, endurance, strength and other fitness components Barik and Banerjee (1990) found that Speed, endurance, strength and agility were increased significantly after training.

The purpose of this study was to know the Effect of a Specific Training Package on Long Jump performance of College level Athletes.

#### The Subjects

Total 30 (thirty) numbers of Boys were taken as subjects of the study. All the subjects were physical education professional students belonging B.P.Ed. 1<sup>st</sup> year Class of Baliapal College of Physical Education. Their age group were ranging from 20 to 25 years. On the basis of random sampling, conducted in the class students were selected for the study. They were assigned into two equal groups numbering 15 in each group. The groups were categorized as; 1. Experimental Group and 2. Control Group. The reliability of data was measured by ensuring instrument precision, tester and subjects' competency. Measurements of Long Jump Performance were taken during pre and post tests and standard methods were followed to procure the data. The training stimuli i.e., Specific Training Package was considered here as the Independent variable.

#### Administration of the Test:

1. Construction of Specific Pre-Season Training Package  
A training package, includes conditioning exercises, physical activities, drills and tactical maneuvers which was designed systematically and scientifically. The package was a comprehensive and thorough one which was supposed to improve the physical fitness and long jump performance. Basing on the literature available and the opinion of the experts the following training details were determined for the specific training package.

Periodisation :Double periodisation

Duration of training period :6 weeks

Number of days per week :6 days

Number of sessions per day :2 sessions

Duration of session : Morning – 60 minutes

: Evening - 60 minutes

The load pattern, the volume and intensity of training for physical fitness, technique and tactics, means and methods to be followed.

**Load Progression:** The principle of progression of load was adopted. The load dynamics was arranged in such a way that the volume increased initially and intensity increased in the end. The load during the micro cycle was high and medium alternatively and high during the last two days before a complete rest day .

**Training Means and Methods:** The following means and methods were adopted for the development of various performance factors during the training .

SpeedInterval training and hollow sprints

Strength Weight training and Plyometric Training

Agility Calisthenics

Flexibility Stretching exercises

Endurance Cross country

Explosive power Plyometric training.

Technique Shadow practice, Skill practice, Lead up game.

**Load for Weight Training:** The following weight training exercises which develop the muscles involved in bowling were selected . (Arm curl, leg press, bench press, leg curl, lateral pull down , squat, chest press , head raise , wrist roller , bowling pulley , upright towing ) . The starting load for the training was fixed by repetition maximum method for each individual. The 10 RM load for each individual was fixed by trial and error. The exercise was performed with 10 RM load for 2 sets with 5 minutes rest between the sets. Load progression was made when the individuals were able to perform 15 repetitions. A new 10RM load was determined for the increase in load.

**Load for Interval Training:** A combination of heart rate method and repetition method was adopted to develop speed through interval training . The speed with which an individual could run 30 minutes and 50 minutes for maximum of 6 – 8 repetitions and to raise his heart rate to 180 – 190 beats per minutes was fixed as intensity. The work outs were given for 3 sets with 8 minutes rest between sets. The work, relief ratio was fixed as 1:3.

**Load for Flexibility Training:** Static flexibility was developed through the following stretching exercises. Each stretching exercise was performed and the position held for 10 seconds initially and repeated 4 times. Achilles Tendon and gastronomies stretch, hamstring and lower back stretch, hip stretch, groin stretch, side stretch, shoulder stretch, wrist stretch, arm stretch and abdominal stretch. Dynamic flexibility was developed through the following active and dynamic exercises. The exercises were performed for 10 repetitions initially for 3 sets.

**Load for Agility and Coordinative Ability Training:** Exercises such as obstacle run, zig-zag run, reaction time exercises were performed to develop the coordinative abilities. The exercises difficulty level was increased with combination of movement, change of rhythm, change of external condition and under pressure of time.

**Load for Plyometric Training:** Exercises such as double leg bound, alternate leg bound, double leg box bound, side hop, squat and depth

jump were performed to develop the explosive power. The exercises were performed for 10 repetitions for 5 sets with 2 minutes rest between the sets.

Both the experimental and control group were undergone a pre test of long jump performance. The experimental group was administered the training package for a period of six weeks where as the control group didn't undergo such training package. After administration of training package for a period of six weeks both the control and experimental group were being tested for long jump performance. The data collected on pre test and post test were analysed statistically for a decisive conclusion.

**TABLE 1 Long Jump Performance Test (Experimental Group) of Volleyball Players (N-15)**

Variables	Pre-Test	Post-Test (6weeks)	't'
Long Jump Performance	4.70	5.05	55.32

The table 1 indicated the mean difference and 't' score between pre test and post test of the long jump performance test through 6 weeks period in experimental group. The obtained't' depicts that there was a significant difference existed at .05 level of significance between pre test and post test of the experimental group on long jump performance.

**TABLE 2 Long Jump Performance Test (Control Group) of Volleyball Players (N-15)**

Variables	Pre-Test	Post-Test (6weeks)	't'
Long Jump Performance	4.50	4.65	15.32

The table 2 indicated the mean difference and 't' score between pre test and post test of the long jump performance test through 6 weeks period in control group. The obtained't' depicts that there was no significant difference existed at .05 level of significance between pre test and post test of the control group on long jump performance.

**Discussions on the Findings:** The results of the study indicated that the Lon Jump performance of the subjects of the experimental group improved significantly after undergoing the specific pre-season training package programme for a period of 6 weeks. The changes in selected parameters were attributed to the proper planning, preparation and execution of specified pre-season training package to the players.

The result of the study showed that there was a significant difference existed at .05 level of confidence between pretest and posttests of 6 weeks in Long Jump Performance Test, which measures Long Jump ability.

Therefore, it can be presumed that the specific pre season training programme for 6 weeks duration for long jumpers was effective and it enhances the performance of the athletes significantly. The improvement was due to the specific exercises specially designed to develop the skills of the long jump.

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