



Category: Invited Talk



PHYSICAL EDUCATION – BASE FOR SCIENTIFIC TRAINING IN SPORTS

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Physical Education is an important domain which provides to be physically fit, mentally alert, socially wellbeing and emotionally stable basically Physical Education involves mass participation offering suitable activities to the boys and girls and different age groups. Physical Education Enable the participants to understand the importance of physical activities and its benefits achieved through regular participation. Children involvement in regular activities develops various physical components required for efficient movement which is very very important for organic development of an individual. Based on certain physical parameters children are divided in to various groups. This is very important step for segregation.

This helps PET/Coach to concentrate on specialized disciplines for methodical training Scientific training concept was introduced in India early eighties inviting coaches from Foreign countries to train our National Teams in various disciplines. This helped our teams to establish a strong base in certain sports doing well in International competitions. Govt. of India Important decision to sponsor National coaches of various disciplines for advanced training inputs to Foreign countries (GDR).

This provided an acquaintance to know the advancement in sports training around the World. This has created an awareness to concentrate on methodical training responsible for significant results in Indian sports. Experience in scientific training among PET's/ Coaches is very much important that helps to make a successful formation of the players. The coach must have the knowledge of effective training methods and organising training programme suitably. Sports' training is the process of preparing the players effectively by proper instruction and practice in order to excel top in the competition.

The performance of the players can be best only when all the players are having equal performance levels in all the departments of the game. The requirements made in the enhancement of performance should be done gradually and systematically. The coach must maintain the proportion between the essential parts of the game/sport during the formation period in order to maintain the balance in the level of their performance.

Scientific Training (Four Parts)

- 1) Physical Preparation
- 2) Technical Preparation
- 3) Tactical Application
- 4) Education

I Physical Preparation :

The Physical components required to be developed to optimum level are Speed, Force, Power, Endurance, Agility, Flexibility and co-ordination etc. This helps the players to perform during the training periods most effectively. From the methodical point of view the physical abilities of players are prerequisite for successful development of techniques of the game. Research evidence provides that Greater the degree of physical fitness, higher the ability in learning fundamental skills. The physical formation depends upon the training state of the players. Generally the rule is that the lower the state of training, the more concentration



on the general development exercises and higher the state of training the more in the special physical exercises.

II Technical Preparation :

Technique is a manner of artistic execution. The training methodology adopted for learning various techniques has a great significance in any discipline. The objective of imparting scientific training is to acquire highest degree of perfection in all the fundamental skills. Capacity of players to learn various skills varies with the standard of the player, thus coaching inputs must be provided accordingly. Examples can be any sport – Athletics, Swimming, Basket ball, Cricket, Foot ball, Volley ball, Kabaddi/Kho-kho and all other disciplines. The methods of teaching are very important to carry out various exercises for learning the fundamental skill. Latest training aids are used for effective learning.

III. Tactical Application :

Tactics is nothing but applying the technique conveniently in order to get success over the opponents. This has great importance in elite competitions. The main aim should be that the technique becomes the means of tactics during the competition. The basic objective of scientific training is to acquire techniques and tactics which helps to maintain stable competitive condition and makes it possible for the players in solving tactical task. This task can only be possible when all the players acquiring high technical perfection during training.

This kind of training helps to exhibit highest degree of competitive ability of players under any circumstances with consistency. This perfection is only developed by a great number of repetitions of "Correctly performed technique". It is said that the process of technical and tactical training is a method of multiple repetitions.

IV. Education

- A) All fundamental rules of the Game and their Interpretation (17 Rules)
- B) Yogic Practice (Selected Asanas)
- C) Psychological Preparation

Teaching/learning of all the fundamental rules of the game and their thorough interpretations.

Examples: Sprint-start, off side in Foot ball, Hockey, Three Seconds Rule in Basket ball, Deliberate push in Hand ball, Simultaneous contact and rotation fault in Volley ball etc. In recent times yogic practice has paramount importance in enhancing sports performance. Research evidences proved that selected yogasanas have significantly improved concentration and reduced tension among the top class athletes. Psychological preparation of an athlete is another important dimension which helps to stabilize mental balance of an athlete during pre-during and post competition periods. This can be seen more in individual events over the team sports. The Psychological preparation is mandatory in order to achieve greater success in World of Sports.

Examples: Boxing, Judo, Wrestling, Weight-lifting, Shooting, Volley ball spiking, Foot ball shooting Cricket-batting etc.