Sports Training

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5.1 Introduction

We use the term training in various contexts. We talk of training of teachers, administrators, police and army personnel, medical and paramedical functionaries including, working in non-governmental organisations and volunteers engaged in various events. In these contexts, by training we mean, an organised and systematic instructional process which aims at improving an individuals' ability to play their assigned roles effectively and meaningfully. However, this kind of understanding of the term training cannot be applied to the concept of sports training. The term sports training is specifically used in the context of athletics, sports and games which could be a training of sports persons, coaches and teachers of physical education. It is also used by scientists and experts who belong to the field of sports science and medicine, sports bio-mechanics, exercise physiology, sports psychology and other fields like yoga and science movement. But even in these contexts, the concept of sports training is understood differently. In this chapter, therefore, we shall learn the meaning of sports training, its aims, characteristics and principles and also about sports skills.

5.2 Sports Training: Meaning

Sports training is a special process of preparation of sports persons based on scientific principles aimed at improving and maintaining higher performance capacity in different sports activities. It is a particular type of training designed to improve fitness and abilities to perform in a given sport. It includes strength in training, corrective and restorative exercises, conditioning and cardiovascular training. It also includes mental and psychological training and advise on nutritional values.

5.3 Performance Development Through Sports Training

Sports training is especially focused on optimal performance in a particular sport. Its main aim is to develop the performance capacity of sports persons, so that they achieve the highest possible performance. To do so, it is essential to be mentally strong. The ability to manage stress and anxiety associated with different sports need to be strengthened. Competition in sports makes the participants face varied situations which require the individuals to be mentally fit.

Box 5.1

Purpose of sports training is to achieve optimal level performance in a particular game and sport.

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5.4 Objectives of Sports Training

The main objectives of sports training are as follows.

1. **Improvement of physical fitness:** The performance in sports generally depends upon physical fitness of a sports person. Every sport activity needs specific type of physical fitness, and hence, the improvement of various components of physical and skills related fitness like strength, speed, coordination, endurance and flexibility is an important aim and objective of sports training.
2. **Acquisition of sports skills:** This includes motors skills as well as basic movement skills. Fundamental motor skills are prerequisites to the learning of sport-specific skills. Every sports activity requires to observe certain specific movement procedure to tackle a particular task. This movement procedure is known as technique and when this technique is learnt and perfected, it leads to skill development. Whenever sports persons include in technical training, they focus on acquisition of motor skills relevant to a particular sport. Fundamental motor skills such as hopping, jumping, skipping, kicking, throwing, catching and striking are prerequisites to the learning of sport specific skills of basketball, football, gymnastics, tennis, cricket, badminton etc.
3. **Improvement of tactical efficiency:** Tactical training is designed to improve various strategies and is based upon analysis of the tactics of opponents. Specific training in sports helps the sports persons to make the best use of their abilities and techniques so that the chances of success in competition are increased. The training develops three kinds of tactics: offensive, defensive and high performance tactics. Tactical efficiency is enhanced by providing the sports persons with knowledge of rules and repeated opportunities to perfect tactical abilities in them.
4. **Improvement of mental abilities** are critical for high level performance in any sport. The training aims at development of positive attitude towards sports and competition, dedication and devotion towards particular sport or event, sincerity and honesty, self-confidence and optimum level of aspiration.

Activity 5.1

Discuss with your classmates the offensive, defensive and high performance tactics that are required to be adopted by any team game of your school, which may be participating in some competition. Based on the discussion, prepare a list of three kinds of tactics, offensive defensive and high performance.

5.5 Characteristics of Sports Training

Some of the important characteristics of sports training are:

1. **Sports Training is Individual-specific:** The needs of every individual for performing in a particular sport are different from those of another. If we take the example of the sprint event, even a small difference in time and speed or distance decides the performance record, victory

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or defeat. The difference depends on individual-specific capabilities. It is, therefore, necessary to identify the individual potential during the training. By identifying their needs, training may be focused at improving the identified gaps in the abilities of that sports person.

2. **To Achieve High Performance in a Sports Competition:** The important feature of sports training is its focus on enabling the sportsperson to achieve the highest possible level of performance in any of the sports competitions. It is a process which is spread over a long period of time.
3. **Sports Training is a Scientific Process:** It is highly influenced by the scientific methods, to achieve best result the knowledge from various dimensions of sciences has to be incorporated during the process of training.
4. **Coach has an Important Role:** A coach helps in building confidence, boosts morale and acts as a friend and a mentor. A coach is like a 'philosopher and mentor' on the sports field.
5. **Optimum Development of Sports Persons:** To achieve optimum performance sports training should be planned, systematic and scientific and to achieve same, different means and methods are used. These means and methods are constantly modified and used in different conditions. Sports, training is a continuous process for optimum development and perfection of sports persons.
6. **Sports training is an Educational Process:** Sports training is basically an educational process and it develops all the aspects of personality. High performance is not possible without developing the personality because both aspects are inter-related and inter-dependent of sports training.
7. **Sports training is a Process of Development of Hidden Talent:** The training helps in observing and assessing the performance level of the player at any given moment. While doing so the hidden talent in a sportsperson is identified. This talent is systematically nurtured through the required specific training inputs.

5.6 Methods of Sports Training?

There are various methods of sports training that are mentioned below:

- Continuous Training Method
- Interval Training Method
- Circuit Training Method
- Plyometric Training Method

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- Repetation Training Method
- Weight Training Method
- Fartlek Training Method
- Cross Training Method

However in this chapter only two methods are described:

1. **Interval Training:** It involves maximum intensity work with intervals. This intensity work is alternated with periods of rest or low activity so that the body adjusts to work and rest. This method involves more of cardiovascular activities of individual.
2. **Cross Training:** refers to training in different ways to improve the overall performance. Cross training uses different methods collectively to improve fitness and increases effectiveness of the training process for every human.

5.7 Principles of Sports Training

It is important to know the basic principles that must be reflected in sports training. These are:

1. **Continuity of Training:** which is the key to ensure the best outcome in a sport. The training of the sports persons has to be continuous and regular. Hence, too long a break in the training should be avoided and the condition of optimum load should be created.
2. **Increasing the Training Load:** there is a relationship between the load and adaptation process. Training load should be gradually increased to enable the body, to adapt higher demands progressively.
3. **Active Participation:** It is a well known fact that a player who is passively engaged in the training does not develop abilities and always remains totally dependent upon the coach or the physical education teacher and never develops confidence or improves performance capabilities. Therefore the teacher/coach must ensure that the sports persons participate in the training with conviction and sincerity.
4. **Planned and Systematic Training:** To achieve a high level of sports performance in competitions, the training must be well planned and conducted in a systematic manner for better results.
5. **General and specific training:** Both general and specific training of a sports person are equally important because general training creates the base and specific training helps to achieve high performance. General training needs to general conditioning of the body such as developing strength, speed, endurance, flexibility, agility, balancing, ability in general. General training is done by general exercising for the development of all

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the muscle group of the body whereas specific training consists of specific exercises with the aim to develop specific strength, specific muscle group and specific motor abilities required for a particular sport.

6. **Clarity** with respect to all aspects of the concerned sport and games more importantly, its techniques and tactics for performance enhancement is the key.
7. **Cyclicity:** The training can be organised in three different cycles: *Macro cycle:* having duration of 3–12 months; *Meso cycle* of 3–6 weeks; and *Micro cycle* of 5–10 days.
8. **Ensuring results:** Sports training is planned to achieve the expected results in small and major competitions or tournaments.
9. **Critical training load:** The training load may be increased to meet the higher demands of competition in unforeseen situations. The training load should be managed more than the general load. This critical load should be measured 4–5 times in a year.
10. **Adaptability:** The adaptability to the training load should be in proper proportion between the load and recovery. Then only a sports person gets adapted to the training load.
11. **Uniformity and differentiation:** The uniformity may be in terms of time and duration of the activity, whereas, the load may vary as per the capacity of the individual sportsperson. It is an established fact that no two individuals are alike. The sports persons participating in the training are different in terms of age, health condition, individual capacity, recovery pace and physique. Keeping these factors in view, the training must be planned as per the needs of the individual sports person.
12. **Feasibility:** training of the sports person should be planned and conducted to draw the maximum benefit. Too little or too much training needs to be avoided.

Box 5.2

Load is defined as the amount of work done by an individual's body. It is the psychological and physiological demand put on the body parts through motor stimuli resulting in improvement and maintenance of higher performance capacity.

Activity 5.2

Observe the sports training sessions planned and conducted by the coach/physical education teacher in your school. Write a brief report on the basis of your observations. Indicate whether all the principles of training are followed. Point out the missing ones, if any in text.

5.8 Training Load

As is evident from the above, in sports training, the load is a major concern. Efforts should be made so that possible work can be done with minimum effort. Load is defined as the amount of work done by an individual's body. It is the psychological and physiological demand put on the body parts through motor stimuli resulting in improvement and maintenance of higher performance capacity. Sports training consists of physical exercises. Therefore one needs to be aware

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of how much training load helps to stimulate various organs of the body, so that the maximum benefits can be achieved.

5.8.1 Over Load

During training of sports persons, load is given to the players according to their capacity. Whenever this load goes beyond the capacity of an individual, the physiological and psychological functions get disturbed. Though this increased load does not affect the sports person immediately, if the administration of the overload continues for a longer period, it results in decrease of his/her performance. The important signs and symptoms of over load are: (i) fatigue, (ii) decline in performance, (iii) loss of interest in sports, (iv) loss of concentration, (v) lack of motivation, (vi) sleep disorder and (vii) loss of appetite (viii) prone to injuries.

5.8.2 Adaptation Process and Training Load

Adaptation is defined as the adjustment of physical and psychological functional systems to the training load. Adaptation to a load results in the enhancement of performance capacity. Thus, a sports person is able to increase his/her performance as a result of adaptation process. Adaptation process demands that a sports person maintains regularity in training. If a sports person is exposed to new and unfamiliar load in a systematic planned way the adaptation process will be faster.

Activity 5.3

Discuss individual experience of members of the team of your school, who play either Volleyball, Kho-Kho, Football or any other sport and who are trained by the physical education teacher/coach.

Some discussion point could be:

(a) What type of training method is being practised?
(b) How the training load was increased?
(c) Did they feel that the increase in training load improved their performance?
(d) Did they feel comfortable with the increase in the training load?
(e) Did anyone get injuries because of the increase in the training load? If yes, what kinds of injuries they got?

Note down their answers, prepare a report based on their answers and share the report in your class.

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ASSESSMENT

Answer the following questions.

1. What is the meaning of sports training?
2. Why is it essential to train a sports person systematically?
3. List and explain the principles of sports training.
4. Explain the terms training load and adaptation.
5. Why a long break in sports training should be avoided?
6. What is the difference between interval training and cross training?

Fill in the blanks.

(i) Sports training is a .....process.
(ii) Sports training aims at high performance in .....
(iii) Adaptation of the training load takes place only when the load is.....continuous process.

Tick (✓) mark either Yes or No.

(i) Sports persons are trained on the basis of scientific principles. (Yes / No)
(ii) Sports training does not help improve the sports performance. (Yes / No)
(iii) Sports training requires systematic planning. (Yes / No)
(iv) Learning of sports skills is the result of practice and experience. (Yes / No)
(v) In sports training, coach/physical education teacher does not have a prominent role. (Yes / No)

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