

### 1.3.1: The principles of training

#### Specificity

Training must be specific to the relevant sporting activity. For example, there is no reason why a 100 metre sprinter would work on their cardiovascular endurance as their sporting performance will only last between 10 and 20 seconds, depending on their age and ability. Their training programme will focus on speed, power and reaction time as these are all key components in their sporting activity.

Athletes taking part in other sporting activities might wear specific equipment when completing training sessions to ensure the training is specific to their performance. Specificity should lead to different players taking part in some team games, undertaking very different training programmes because of their different roles or positions in the team.

#### Overload

Overload is how the athlete and coach can make training sessions progressively more difficult and put more stress on the body so that they continue to improve their fitness levels. There are three main ways in which overload can be achieved:

- i. **Increasing the frequency of training:** the athlete could increase how many times they train from three to four times a week to cause overload.
- ii. **Increasing the intensity of training:** the athlete could increase how hard they train by doing more sets or more repetitions during their session to cause overload.
- iii. **Increasing the duration of training:** the athlete could increase the length of the training session from 30 minutes to 40 minutes to cause overload.

#### Progression

Training sessions should get progressively more difficult as the athlete works through their training programme. This is because the athlete will develop their level of fitness as they complete more sessions, meaning they have to work progressively harder to continue to make improvements.

This is because the athlete's level of fitness will develop and improve to the point where their body can cope with their current level of training without becoming stressed or fatigued. This situation is known as plateauing.

Progression is closely linked to overload, sometimes being referred to as progressive overload.

#### Variance

A training programme should always include a variety of training sessions and training methods in a variety of training venues to reduce the likelihood of the athlete suffering from boredom and plateauing. This variety will help to keep the athlete motivated during their training sessions and might also help with progression as they will not become stale by repeatedly having to complete the same session.

For example, an athlete undertaking a training programme designed to increase their cardiovascular endurance by using continuous training could include variance in their programme by taking part in outdoor running sessions, swimming sessions, running sessions on a treadmill, outdoor or indoor cycling sessions, or indoor or outdoor rowing sessions.