



Keywords	
Word	Definition
Quantitative Data	Measurements recorded numerically.
Qualitative Data	Descriptive data that records how the subject is thinking or feeling.
Objective Data	Data based on facts and can be quantifiably measured.
Subjective Data	Data based on opinions and beliefs.
Validity	Refers to the degree to which a test actually measures what it sets out to.
Reliability	Refers to the degree to which a test can be accurately repeated.
Rate of Perceived Exertion (RPE)	A subjective measurement on a performer's level of intensity during performance. The BORG scale is an example of a scale to measure RPE.
Periodisation	Dividing the training year into specific sections to maximise performance.
Tapering	Reducing the volume or intensity of training prior to competition.
Peaking	Planning and organising training so a performer reaches peak performance, both mentally and physically to coincide with a major competition.

Key skills

The Principles of Training	
SPORR	
Specificity	Choosing the relevant training to match the demands of the sport/position (energy system/muscle fibre type/skills/movements)
Progressive Overload	Gradually making training harder throughout a training programme as fitness improves (Use of the FITT principles)
Reversibility	Ensuring training is organised with regularity to prevent detraining and losses in fitness.
Recovery	Organising training so intensity and volume is taken into account to allow the body to adapt and prevent overtraining syndrome.
FITT – Organising training to ensure for Progressive Overload	
Frequency	How often training occurs, this must be regularly to prevent reversibility, but include rest days to ensure the body can adapt to hard bouts of training/competition.
Intensity	How hard you train, which can be monitored objectively through heart rate/ Lactate sampling or subjectively through RPE scales.
Time	How long the training session lasts. Increasing the duration of the sessions will increase progressive overload
Type	What type of method of training selected to match the demands of the sport/position. Variety increases motivation and prevents overuse injuries.

Application of the Principles of Periodisation

MACROCYCLE

Long-term performance goals are set with the big picture in mind. Macrocycles are sub-divided into:

- + **Preparation Phase** – similar to pre-season training where fitness levels are developed / Pre-season friendlies
- + **Competition Phase** – Main competition block/ skills and techniques are refined/ tactics and strategies implemented/ performance analysis of previous performance informs future training.
- + **Transition Phase** – End of season/ Rest and recovery / maintenance of general fitness

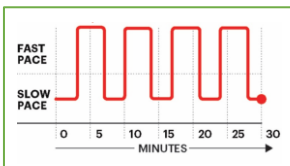
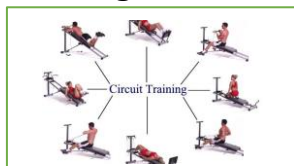
MESOCYCLE

4-12 week training blocks within each macrocycle phase with a specific focus, eg. An endurance performer may focus on increasing their strength endurance.

MICROCYCLE

Involves a training programme of a few days to 1 week that is repeated throughout the length of the meso-cycle.

Training Methods to Improve Fitness and Health



Physiological Benefits of a Warm-up and Cool Down

A WARM-UP prepares the body for exercise and consists of a pulse raiser, stretching and mobility exercises and skill-related activities. The benefits include:

- + Reduces risk of injury
- + Muscle temperature is increased
- + Increases elasticity of the muscle tissue
- + Synovial fluid is released
- + Increased oxygen delivery to the muscles
- + Increased speed of nerve conduction
- + Improved reaction time
- + Allows for rehearsal of movements
- + Allows for mental rehearsal and preparation.

A COOL DOWN gradually brings the body back to a resting state and allows for:

- + maintains the skeletal muscle pump
- + Prevents blood pooling and maintains venous return
- + Removes lactic acid
- + Limits the effects of DOMS

Box 6: Pathway

Previous knowledge: Cardiovascular system, venous return, neuromuscular system.

Future links: Recovery from exercise

Careers: Strength and Conditioning coach, exercise physiologist.

Box 7: Cross curricular links