



BOARD OF STUDIES
NEW SOUTH WALES

c) The increasing advancements in technology have been of particular importance for the training of skills and techniques. Modern machinery has increased the ability of coaches to vary skills and drills whilst remaining sport-specific. The introduction of wind-tunnels, isokinetic weights equipment, and new forms of resistance allows a new variation in training practices. One such example is the equipment used by sprinters, now drills can be increased in intensity through the use of parachutes, sleds and weight vests. Whilst some of these methods are not extremely modern, the affordability of these alternative methods have resulted in an increased use when training for skill and technique. The introduction of a variety of specialists, such as biomechanists, psychologists and rehabilitation experts, have resulted in professionalism. Coaches now have access to these specialists through the internet and specialist libraries, enabling coaches to make informed decisions on the most appropriate skills and drills to be performed, and providing them with a vast array to choose from.

The use of wind-tunnels and indoor centres with variable temperatures has allowed coaches to simulate drills that are specific to game conditions, for example. Indoor snow slopes have allowed moguls skiers to prepare for competition in a variety of places, weather irrelevant. Similarly the analysis of technique has become far less superficial. With the aid of high resolution photography and video analysis, biomechanists are able to examine the fine details of movement that are unseen to ~~the~~ ^{the} human eye. No longer is technique analysis reliant on the coach. Similarly testing for lactate levels during a training session has become a simple procedure that is efficient and does not waste training time, yet provides important feedback for the coach. The introduction of such facilities as indoor rock-climbing centres, has allowed the environment where testing is carried out to be similar to the competition environment. Electronic touchpads and timing devices have ensured the precision of the

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measurements in the test. This accuracy leads to a better chance of concise technique correction. Computer simulations and ^{archives} ~~videos~~ of previous performances have allowed coaches better access to a variety of methods to correct errors in skill. The introduction of lighter clothing and equipment that aids technique (such as graphite golf clubs), have allowed better technique with minimal instruction. Hence the use of technology in training sessions designed to improve skill has resulted in a wider range of training practices that a coach can choose to adopt. The techniques and drills that are now available allow the coach to progressively overload their athletes whilst remaining specific to improving their skills and techniques. Whilst taking away some coaching responsibilities, technology should be used in a complimentary sense and should not dominate training sessions that are designed to improve skill.