

HSC PDHPE Sample

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Core 1: Health Priorities in Australia

- health promotion based on the five action areas of the Ottawa Charter
 - levels of responsibility for health promotion
 - the benefits of partnerships in health promotion, eg government sector, non-government agencies and the local community
 - how health promotion based on the Ottawa Charter promotes social justice
 - the Ottawa Charter in action
- argue the benefits of health promotion based on:
 - individuals, communities and governments working in partnership
 - the five action areas of the Ottawa Charter

Levels of responsibility for health promotion

Responsibility for promoting health applies at many levels including:

- Individuals and families
- Community groups and industry such as schools, workplaces and the media
- All levels of government - local, state and Commonwealth
- NGO's, both Australian and International
- ***Governments have recognised that health promotion is most successful if individuals, groups, governments and other organisations take a shared responsibility and a joint action to improve health outcomes for Australians.***

Benefits of partnerships in health promotion .e.g. government sector, non government agencies & the local community

- Collaborating with multiple partners including governments/NGOs is essential in addressing social determinants lying outside the control of the health system, as well as targeting inequities and developing comprehensive health services tailored to people's needs and interests.
- If societal sectors (e.g. governments, community groups) work together in achieving a common goal, an integrated health promotion program will result, creating conditions optimal for the program's success, leading to better health.
- Governments and NGOs need to constantly collaborate to determine the success of health promotion strategies. Involves the collection of data (epidemiology) which is subject to evaluation.
- **Example:** by surveying school students on what style hats they'd prefer to wear outdoors, a choice can be selected that kids are more inclined to wear).

How health promotion based on the Ottawa charter promotes social justice

Social justice principles (SJP's): equity, diversity and supportive environments are an essential foundation for health promotion (HP) strategies and strongly linked to the Ottawa charter.

- **Developing personal skills (DPS)** - individuals use knowledge/skills to make informed decisions and positively influence those around them. Equitable access to education and information is necessary to develop skills, vital for healthy living and ensures people aren't limited by SES, gender, race (diversity) creating a supportive environment. .e.g. NSW compulsory education until 17yrs.
- **Creating Supporting Environment (CSE)** - increases a person's chances of making health benefitting choices. Supportive environments recognise a population's diversity and may remove barriers to good health, addressing any former inequities. (diversity) .e.g. Designated time slots for Muslim women at pool to participate in women only swimming sessions).....**(full dot points included in purchased notes)**

Core 1 Examination Questions & Answers Sample

Discuss the role that individuals AND communities have, in addressing the inequities experienced by Aboriginal and Torres Strait Islander peoples. (4 Marks)

In order for individuals, especially ATSI in low SES areas to address their inequities effectively, they must first be provided with access to technology and health education equitably, as these are the two major factors that empower an individual the most to take control and improve their health as well as the health of those around them.....**(full responses included in the purchased notes).**

Core 2: Factors Affecting Performance

- anxiety and arousal
 - trait and state anxiety
 - sources of stress
 - optimum arousal
- explain the difference between anxiety and arousal in terms of the effects on performance

Anxiety is a psychological state of fear of what may happen, when a person is apprehensive about an upcoming/existing situation. It can significantly impact an athlete's performance by affecting concentration, motor control and arousal levels.

Types of anxiety

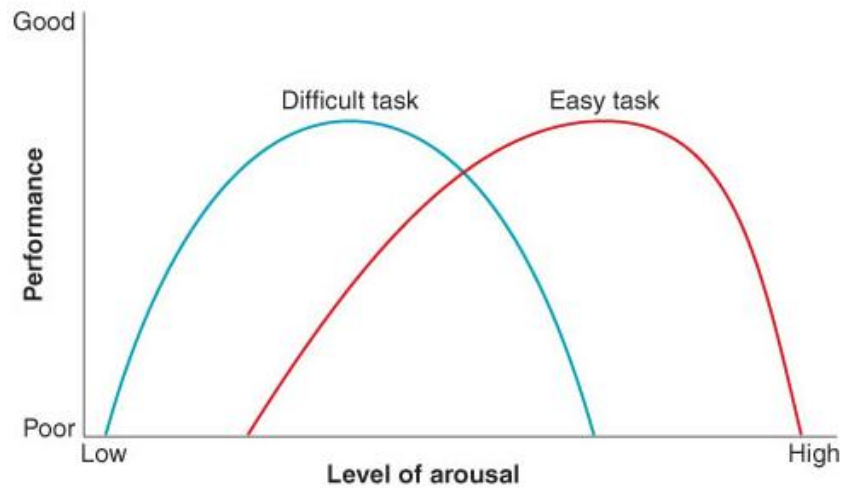
<i>Trait</i>	<i>State</i>
<ul style="list-style-type: none"> - Predisposition of an athlete to perceive situations as threatening/stressful. (personality trait) - Controlled via simple relaxation techniques. 	<ul style="list-style-type: none"> - Experienced as direct result of a specific situation .e.g free throw line. - Harder to control, involves training to mentally rehearse and relax.

Sources of stress

<i>Social</i>	<i>Environmental</i>	<i>Psychological</i>	<i>Physiological</i>
Events/people in your life that place demands on you (deadlines, financial problems, parental pressure).	Weather, noise, temperature, humidity	Negative thoughts low self esteem	Injuries, overload, lack of exercise, illness, puberty, menstruation.

Arousal is a physiological process (with links to emotions) rather than anxiety which is a predominately psychological state, and is an athlete's excitement/readiness to produce a response.

- The **inverted U hypothesis** illustrates the relationship between arousal and optimal performance, suggesting as physiological factors emerge .e.g. increasing heart rate and muscle tension, performance increases towards an optimal level. **But if arousal rises after the peak, performance declines.**
- There are different "optimal levels" for each sport and for different individuals that coaches should identify. For more difficult tasks, the level of arousal approaches "Low" (as seen below)
- Limited as it doesn't consider all variables impacting performance .e.g. personality, environmental, audiences etc



Core 2 Examination Questions & Answers Sample

Compare the responses of fast and slow twitch muscle fibres to training. (3 Marks)

Fast twitch muscle fibres are those that contract vigorously to provide power in explosive exercises. Training fast twitch fibres through power exercises .e.g. plyometrics, increases their ability to apply a larger force in a shorter time as $P = \frac{Fd}{t}$. As it can be seen, as t (time over which force is applied) decreases, or F (force applied) increases, P (power generated) increases.....**(full responses included in the purchased notes).**

Core 3: Improving Performance

- **anaerobic training (power and speed)**
 - **developing power through resistance/weight training**
 - **plyometrics**
 - **short interval**

Anaerobic training (power and speed) focuses on shorter, high intensity training sessions emphasising speed and explosive movements, engaging fast twitch muscle fibres and stressing and developing anaerobic energy systems (lactic and ATP/PC). Anaerobic training increases strength, power, ADP stores, lactic acid tolerance/buffering and induces hypertrophy and increased muscle recruitment efficiency.

<p>Developing power through resistance /weight training</p>	<ul style="list-style-type: none"> - Most sports require power and strength (footy, bball). ∴ It is vital that athletes develop both instead of focusing on one and neglecting the other. - Athletes wanting to improve power need to practice at competition speed, and when choosing weight for an overload effect, ensure it isn't at the expense of execution speed. If training movements are slow, the recruited muscle fibres change from fast to slow twitch, training the wrong fibres (specificity). - $P = \frac{Fd}{t}$ to increase power, $\downarrow t$, $\uparrow F$, $\uparrow d$ - Strength is prerequisite to developing power. Starting strength is recruiting as many muscle fibres as possible in the performance of a movement .e.g. weight lifting, to overcome inertia and generate momentum.
<p>Plyometrics</p>	<ul style="list-style-type: none"> - Explosive exercises designed to develop power. If a concentric contraction occurs immediately after an eccentric one, the generated force is significantly increased. This is because, although most of the energy needed to stretch a muscle is eventually lost as heat, some of it is stored by the elastic muscle components and is available only during an immediate, subsequent concentric contraction. - Includes power skipping, alternate leg bounding, tuck jumps - Stresses joints and back from high impact activities and may strain muscles.
<p>Short interval</p>	<ul style="list-style-type: none"> - Involves short, high intensity phases followed by sufficient rest periods to restore ATP, placing demands on the anaerobic energy systems and improving lactate tolerance. - Rest periods, exercise duration, reps need to be adjusted to apply overload. - Includes sprints, and short bursts e.g. 100m

Core 3 Examination Questions & Answers Sample

Analyse how technology can be used effectively to improve sports performance (12 Marks)

The moon landing in 1969 utilised advanced equipment .e.g. space suits and materials that entrepreneurs and businesses soon researched to invent and develop various training innovations as well as equipment such as lycra body suits which have revolutionised the way sport is placed today..... **(full essays included in the purchased notes).**

Core 4: Sports Medicine

Rehabilitation is the process of restoring athletes to pre-injury levels of physical fitness.

Progressive mobilisation	<ul style="list-style-type: none"> - It is vital that following the use of the RICER method, that movement is restored to the injury ASAP. The injured part must be progressively mobilised, by gradually extending the ROM through which the injured part can be manipulated until it is fully functional. - e.g. plantarflexion/dorsiflexion of the ankle after an injury
Graduated exercise	<ul style="list-style-type: none"> - Stretching injured parts is vital to ensure body parts heal without scarring which shortens muscle and makes it prone to future injury. PNF is the best form of stretching, strengthening muscles during safe movement.
	<ul style="list-style-type: none"> - Conditioning is the build-up of fitness as a result of adaptations to gradual increases in physical stress. - Effective conditioning uses the overload principle to ensure greater than normal loads are placed on the body and is individualised. - Periods of rest and recovery should be followed by gradual increase in periods of work, ensuring the conditioning process is pain free and targets specificity, as conditioning must target general cardiorespiratory fitness as well as strength, power and muscular endurance. - Excessively aggressive conditioning programs may lengthen the recovery process.
	<ul style="list-style-type: none"> - Total body fitness is regaining the pre-injury level of mental/physical fitness. - Training programs must progressively overload muscle groups and energy systems so that required adaptations are regained pre-competition .e.g. muscle hypertrophy, increase flexibility, strengthened tendons/ligaments, confidence that the injured area can handle stress, absence of pain, increased blood flow/capillarisation.
Training	<ul style="list-style-type: none"> - Once total body fitness is achieved, trainings should resume, involving warm ups, conditioning, drills, skills/tactic developments and cool downs. - The purpose of this training is to ensure the athlete displays the same skill proficiency as displayed pre-injury. .e.g. illinois agility test, beep tests, sit up/push up tests.
Use of heat and cold	<ul style="list-style-type: none"> - Cold can be applied for up to 4 days after injury and aims to reduce inflammation. .e.g. cryotherapy - Heat is generally used 2-3 days after injury, depending on the injury type/extent, after internal bleeding as stopped, to increase elasticity of new fibres, reduce pain/stiffness, increase bloodflow and reduce inflammation .e.g. via hydrotherapy.

Core 4 Examination Questions & Answers Sample

Explain how sports medicine addresses the needs of children and young athletes (8 Marks)

Children and young athletes have specific needs that sports medicine addresses effectively. Diseases common in early child hood .e.g. Type 1 diabetes and the now more common Type 2, asthma, epilepsy and issues of thermoregulation need to be considered by coaches of young teams so that they can be effectively addressed and management plans be implemented.....**(full essays included in the purchased notes).**

END OF SAMPLE

Bibliography

Board of Studies NSW. (2009). *Stage 6 PDHPE Syllabus* . Board of Studies NSW.

Ruskin, R., Proctor, K., Neeves, D., Fitzgibbon, L., Kennedy, N. & Rose, T. (2009). *Outcomes 2 HSC Course*. Queensland: John Wiley & Sons

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