# Promoting critical thinking through HSC Core 2 factors affecting performance

Duration: 1 to 2 lessons (50-60 minutes in length)

### Educative purpose

This teaching and learning activity is designed to support the HSC Core 2 content. Students will increase critical thinking skills and require application of knowledge and understanding.

This activity uses a case study approach to encourage students to apply their understanding of the principles of training to real life scenarios. It is designed to fit within an existing teaching program or be used as a revision exercise on the conclusion of the Core.

### Syllabus content

**H8** explains how a variety of training approaches and other interventions enhance performance and safety in physical activity

**H16** devises methods of gathering, interpreting and communicating information about health and physical activity concepts

**H17** selects appropriate options and formulates strategies based on a critical analysis of the factors that affect performance and safe participation.

All outcomes referred to in this unit come from [PDHPE Stage 6 syllabus](https://educationstandards.nsw.edu.au/wps/portal/nesa/11-12/stage-6-learning-areas/pdhpe/pdhpe-syllabus) © NSW Education Standards Authority (NESA) for and on behalf of the Crown in right of the State of New South Wales, 2009

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| Critical question(s) | Syllabus content |
| How does training affect performance? | * Principles of training   + progressive overload   + specificity   + reversibility   + variety   + training thresholds   + warm up and cool down |

### **Resources/preparation**

* Access to the case study and instructions (class blog, Team, OneDrive, Google classroom).

### Learning activity description

Individually, students read both case studies.

**Case study 1**

Hunter is a road cyclist who has been consistently training 4 times a week for 4 months completing his usual 40km flat loop around Nelson Bay. Recently, he hasn’t been motivated to train and his local riding group are encouraging him to compete in a 120km undulating road race in 6 weeks time. Hunter is not confident that he would be able to complete the race and he has asked for your training advice.

**Case study 2**

Gabriella is a kayaker who has experienced significant shoulder pain during her in season this year as result of her increased training and competition demands. She has just competed at the Australian Championships and has set a goal of building up her upper body strength during her off season. However, Gabriella is unsure how she should go about this and she has asked for your training advice.

Process:

1. Brainstorm the content specific to principles of training.
2. Using the case study determine the specific training examples (aerobic or strength) for the principles of training.
3. Brainstorm the training advice that you could provide to Hunter or Gabriella in relation to the principles of training.
4. Using your gathered information answer the following question:

Analyse the most appropriate principles of training that you would advise:

* Hunter to apply to his current training regime that will allow him to improve his aerobic capacity
* Gabriella to commence that will assist her in improving her strength.

1. Share your response with a peer or class to review, e.g. class blog, Microsoft Teams, OneDrive, Google classroom.
2. If possible, invite some individuals to present and explain the most appropriate principles of training.
3. Within the class, peers are invited to critique and provide feedback to another student. This is using an established process within the class. Alternatively, teacher feedback could be provided to improve the quality of the student’s work.