

A 'how to guide' for short and extended response questioning for the study of senior exercise or sports science.

Tennessee Williams once said 'Life is an unanswered question, but let's still believe in the dignity and importance of the question'. When I speak to HPE teachers from a range of schools, sometimes their biggest struggle is developing the best test questions to see if their students actually 'get it' and to check if the learning 'sticks'. Writing quality assessment tasks and developing quality test questions is an art in itself and often teachers are not very well prepared or trained in this area. Asking the right questions not only allows teachers to test the right knowledge, skills and understanding, but it also ensures teachers can stretch the range of students in any mixed ability setting.

In Australia, the new NATIONAL curriculum in HPE asks all teachers to focus on a critical inquiry approach which 'recognises the contextual factors that influence people's attitudes, decisions and actions and encourages students to challenge, question and interrogate PDHPE-related content and health information'. Higher-order thinking is often associated with this and hence teachers need to build their capacity to design effective questions that allow students to think and analyse critically, especially in 21st century learning.

Furthermore, a recent article from 'Edutopia' suggested that there are simple and effective strategies to help make learning stick as our brains are wired to forget. One strategy is using frequent practice tests. Akin to regularly reviewing material, giving frequent practice tests can boost long term retention and as a bonus, help protect against stress, which often impairs memory performance. Practice tests can be low stakes and ungraded, such as a quick pop quiz at the start of a lesson or a trivia quiz on Kahoot. Breaking down one large high stakes test into smaller tests over several months is an effective approach' (Butler, 2010; Karpicke, 2016).

To solve this dilemma, teachers may well find that a simple 'toolkit' is the answer to designing more robust question types. The 'Teacher Planning Kit' from Blooms Taxonomy is a set of well developed question stems that is often not used to its full capacity in HPE. It forms the perfect platform to design quality test questions, especially in a senior exercise or sports science context.

[Blooms Taxonomy - Teacher planning toolkit:](#)

I have re-designed a range of test questions attached as a resource, designed using the Blooms question stems as a starting point. From lower to higher order thinking, each suite of questions targets different content in a typical exercise or sports science course. Teachers may find this a useful starting point to design or modify their own questions. Using past papers and practice test questions from a range of state and territory jurisdictions, then adjusting these to suit the individual context, makes it easy for teachers to plan quickly and prepare a range of questions. This critical inquiry approach maximises the range of question types from knowledge, comprehension, application, analysis, synthesis and evaluation. This

allows students to regularly and actively practice these explicit types of thinking skills. Each level of Blooms is designed with a star which reflects the level of thinking involved:

- *Knowledge (one star thinking – identification and recall of information) type questions were designed using ‘Functional Anatomy and Physiology’ as a content base.
- **Comprehension (two star thinking – organisation and selection of facts and ideas) type questions were designed using ‘Sports Nutrition’ as a content base.
- ***Application (three star thinking – use of facts, rules and principles) type questions were designed using ‘Biomechanics’ as a content base.
- ****Analysis (four star high order thinking – separating a whole into component parts) type questions were designed using ‘Sports Performance’ as a content base.
- *****Synthesis (five star higher order thinking – combining ideas to form a new whole) type questions were designed using ‘Exercise Physiology’ as a content base.
- *****Evaluation (six star higher order thinking – developing opinions, judgements or decisions) type questions were designed using ‘Sports Psychology’ as a content base.

These question stems can also be adapted to suit a health or physical education context, such as an upcoming health unit or a game sense type unit using invasion, striking and fielding, net/wall/court or target games as the focus. I would encourage teachers to try using the Blooms Teacher Planning Kit, which can save precious planning time and better support student thinking to make learning stick!

Download a copy of the ‘How to Guide’ below

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