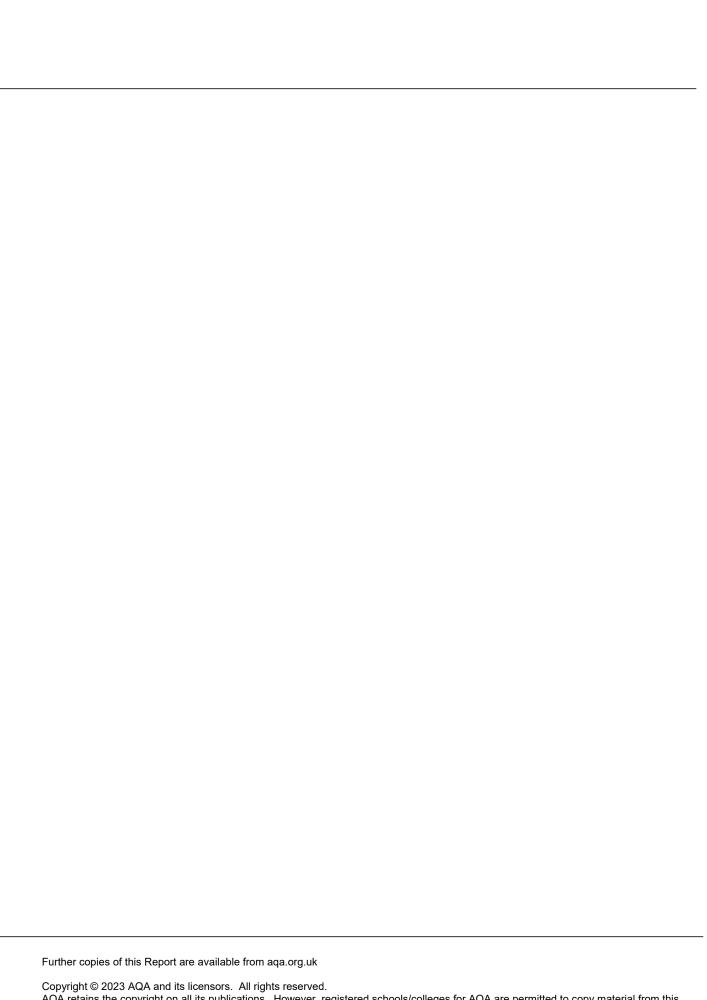# AQA

A-LEVEL
PHYSICAL EDUCATION

7582/2 Factors affecting optimal performance in physical activity and sport
Report on the Examination

7582/2
June 2023

Version: 1.0

General Comments

This was the first 7582/2 A-Level Physical Education paper since 2019 without advance information. The mean mark for this paper was approximately 0.5 marks lower than the 2022 paper in the region of 43.5 out of 105. There were fewer unanswered questions and students did not appear to run out of time. This was evidence by the last mark in the paper. Mean marks for each section were in the region of:
Section A = 14 (17 in 2022)
Section B = 13.26 (13.26 in 2022)
Section C = 16.38 (14.8 in 2022).

Some of this difference may be accounted for by the fact that Section C had the highest mean mark for a 15-mark question.

The main area for improvement on short answer questions continues to be ensuring that students answer the question that has been set. This requires students to understand both the command word used and the assessment objective (AO) which is likely being assessed. Too often the level of detail students provide does not reflect the demand of the question, particularly when questions are assessing AO3. Where sports/activities are referenced in a question the response must be linked to this.

Section A – Applied anatomy and physiology

Questions 1 and 2

Only 40% of students could correctly identify the dietary supplement that would improve the mobilisation of fatty acids in the body. 36% correctly identified the forces labelled on the diagram with many confusing grounds reaction force with muscular force.

Question 3

A 3-mark AO1 question which had an approximate mean mark of 1.45. Some students failed to refer to the training focus for the transition phase as active recovery or equivalent.

Question 4

A 3-mark AO2 question which was answered well. The approximate mean mark was 2.3. Most students achieve at one mark or more for this least question. Where students lost marks it was often due to referring to the same point more than once e.g. streamlined position, then an example of a streamlined position as a second point. Most were able to get marks for swim cap/costume/shave hair. Some who didn't get marks lost marks because their examples didn't specifically relate to swimming e.g. tight clothing.

Questions 5.1 and 5.2

Question 05.1 was a 1-mark AO1 question. Roughly 37% of students could correctly state Newton's first law of angular motion. Many students simply referred to the definition linear motion for Newton's first law. There were some students who applied it to angular motion but often left out 'constant angular velocity'.

Question 05.2 was a 3-mark AO3 question, focussing on analysing angular motion to a figure skater's speed of rotation. Approximately 4% of students were awarded full marks for this question. The mean mark was 0.6. The two common mistakes made were where students just described the law and didn't apply it, and where students describe the law of conservation of angular momentum, rather than Newton's Laws. Quite a few students analysed Newton's 3rd law in relation to jumping at the start of the spin rather than on the speed of rotation.

Question 6

Question 6 was the first of the 8 mark extended response questions. Student responses received the full range of available marks with a mean mark of approximately 3.7. Many identified the correct class of lever and knew the mechanical advantage/disadvantage. Lots of the diagrams drawn weren't quite correct in terms of the position of the arrows/boxes. Some students didn't get the correct lever (1st class at the knee) but this was only a small proportion. Many were in band 3.

Question 7

Question 7 was the first of the 15 mark extended response questions. The mean mark for this question was approximately 4.8. Most students attempted to answer the question with very few blank responses. Many students knew what a hyperbaric chamber was, although a minority thought it was cryotherapy. Students were good with their knowledge of gaseous exchange and some were able to make the link between hyperbaric chambers and gaseous exchange. The most common AO3 points were awarded for reduced swelling, white blood cell activity and overall increase in speed of recovery. A common mistake on this question was students who evaluated hyperbaric chambers but suggest alternatives and stating about the expense of these chambers, which was irrelevant.

Section B – Skill Acquisition

Questions 8 and 9

Question 08 was well answered with 7approximately 8% of students identifying self-efficacy as 'The belief in your ability to master a specific sporting situation.'

Question 09 was also well answered with approximately 74% of students correctly co-actor as the 'others present in sport.'

Questions 10.1 and 10.2

Approximately 27% of students could answer question 10.1 correctly because they used the word reason instead of perception/belief in the definition.

The mean mark for question 10.2 in the region of 0.6, mainly due to the fact students did not refer to task persistence. A number also referred to attributions as 'internal' and 'external' rather than specifying 'internal-stable.' Those students who got marks for this question tended to get 2 marks – if they knew about attributions for success and task persistence, they were able to reverse this for failure. The responses highlighted a lack of understanding and application of attribution theory.

Questions 11.1 and 11.2

Question 11.1 was a 1-mark AO1 question. Approximately 45% of students could correctly outline Steiner's model of group productivity.

Question 11.2 was a 3-mark AO2 question. Roughly 3% of students gained full marks on this question mainly due to the fact that students discussed generally about the weaker team having more cohesion, more motivation etc., rather than specifically referring to Steiner's Model. The other issue with this question is that where students did refer to coordination/motivation losses, they weren't explained.

Question 12

Question 12 was a 3-mark AO3 question with a mean mark in the region of 0.9. Approximately less than 1.9% of students achieved the maximum mark available. This question confused students as they did not register that the question referred to the effectiveness to measure anxiety levels in a rugby squad. This meant that response referring to the pros and cons of questionnaires as a method of gathering information in general were not creditworthy. This was an evaluate question so response required a reason and a result e.g. quick /cheap/efficient <u>so that</u> one person can conduct the questionnaires.

Question 13

Question 13 was the second of the 8 mark extended response questions. The mean mark was approximately 3.2. While the full range of marks were awarded less than 23% of students were able access level 3 and 4. A number of students didn't know Atkinson's Model, so just referred to motivation, intrinsic and extrinsic, generally. Of those students who did know about Atkinson's model, the least well answered section was the strategies. Many students named one or two but didn't apply them to the penalty nor did they analyse them. There was a definite weakness in AO3 for this question.

Question 14

Question 14 was the second of the 15-mark questions on the paper. Students received the full range of marks for this question resulting in an approximate mean mark of 5.7. This question was quite well answered with most students able to access level two or above. Many students were able to name two or 3 cognitive stress management techniques, a few did focus on somatic ones. What failed to get students into the top bands was not applying enough to golf (AO2) and/or not giving enough analysis – just general points like this will help to lower stress, rather than specifically focusing on how each technique would help the golfer.

Section C – Sport and Society

Questions 15 and 16

Students performed very well on question 15 and 16, with an approximate mean of nearly 0.9 for both questions.

Question 17

Question 17 was a 3-mark AO1 question which had a mean mark around 1.89. Students showed good knowledge and understanding of the role of the National Institutes of Sport. Centres should be advised that funding in general is not their function, and that facilities and coaches need to be qualified as higher level/ top level to be credited. The command word outline was often mistaken for state and listed services.

Question 18

Question 18 was a 3-mark AO2 question which required students to apply sports legislation to a footballer. Although students were familiar with situations where footballers would be protected very few referred to the protection given by sports legislation. This was an AO2 question, so it required the situation and an example of the application of sports legislation.

Questions 19.1 and 19.2

Question 19.1 was a 1-mark AO1 question which around 39% of students answered correctly. It is clear from this question that students struggle with the word psychological – many answered this question in terms of physiological or social reasons for taking drugs.

Question 19.2 was a 3-mark AO3 question with a mean mark around 1.52. many students failed to identify the physiological factor and make the link to sport. The most commonly awarded mark was for EPO and the cyclist, closely followed by the boxer. The least awarded point was for the golfer as many focused on the psychological effects of betablockers e.g. lower anxiety/arousal/stress.

Question 20

Question 20 was the final 8 mark extended response question with a mean mark of over 3.5. Many were able to access some marks for the examples of the different forms of technology for people with disabilities. Most made brief use of the data in the table as well. However, there was very little evaluation – most focused on the positives of technology in lowering participation rates. There wasn't sufficient use of the table either, with most students using it once to demonstrate the reduction in inactivity.

Question 21

Question 21 was the final 15-mark question on the paper. The mean mark of approximately 6.7 placed this question as the most successful extended answers. Students recorded scores across the full range of marks. This question was generally well answered with good knowledge and understanding of the effect of commercialism on coaches and audiences. Some responses concentrated on the sport or players which was not creditworthy. The positive and negative effects of commercialism on coaches and audiences was generally well understood with students able to construct good clarity and reasoning in their responses.

Mark Ranges and Award of Grades

Grade boundaries and cumulative percentage grades are available on the [Results Statistics](#) page of the AQA Website.