A-LEVEL
PHYSICAL EDUCATION

7582/1: Factors affecting participation in physical activity and sport
Report on the Examination

7582
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General comments

This was the second 7582/1 A-level Physical Education paper for this specification. The mean decreased by approximately 1.6 marks from 2018. While both the specification content and the style and demand of questions were generally understood, the concept of synoptic questions has been less well addressed and in some cases missed all together. Questions 06 and 19, the two synoptic questions on this paper, were the lowest scoring 8 and 15-mark questions respectively. Centres should ensure that they, and their students, understand the requirements regarding synoptic assessment outlined on page 33 of the specification. The failure to access available marks on synoptic questions is a possible reason for the lower overall mean mark.

The mean mark for Section B of the paper was approximately 2 marks higher than the other two sections. This may reflect the fact that Sections A and C were those that contained synoptic questions.

In this series, there was evidence of questions being left unanswered with the proportion of non-attempts on some questions as high as over 6%. Time management is more of an issue in this new style of exam compared to the papers for the previous specification. Students should be aware that time spent writing excessive amounts for any one question can result in them running out of time to complete the remainder of the paper.

The multiple-choice questions were answered well, although there was evidence of differentiation on them with the mean marks ranging from 59–88%.

The main area for improvement on short answer questions continues to be ensuring that students answer the question which has been set. This is particularly important for questions testing Assessment Objective 2 (AO2), where a specific scenario or activity has been outlined and students must apply their knowledge in order to access the available marks.

Responses to the extended answer 8 and 15-mark questions were again mixed, but there was clear evidence of an increased focus on planning in this series with some students able to write very concise yet detailed answers which answered the question set. These were the responses which achieved marks in the top bands. Evidence of AO3 skills continues to be lacking in the majority of answers. However, there were some excellent examples of students using higher-order thinking skills and not just regurgitating text book knowledge to answer these questions. This was very encouraging to see.

There was still some evidence of a scattergun approach to answering extended response questions with students simply writing everything they knew about a topic and not relating it specifically to the question. These extended response questions are designed to test the skills of the students in one of two AO3 areas, analysis or evaluation. Where a question asks a student to analyse, arbitrary evaluation of strengths and weaknesses is not creditworthy unless it specifically addresses the question set. For example, when responding to question 6 which asks students to analyse the use of cryotherapy in relation to redistribution of blood and recovery from exercise, simply identifying that cryotherapy is expensive is not creditworthy. Showing an understanding that an ice bath will bring about a similar physiological response with regards to the vascular shunt mechanism and is cheaper, and therefore more accessible, is creditworthy.

Section A – Applied anatomy and physiology

Questions 01 and 02

Question 01 was the lowest scoring of the multiple-choice questions on the paper with around 59% of students correctly identifying gluteus minimus as the muscle which causes horizontal abduction at the hip. This highlights the importance of students developing an understanding of the working muscles across all the joints and movements specified and especially those relating to abduction and adduction of the hip, and horizontal abduction and adduction of the hip and shoulder which are not required at GCSE.

Question 02 was answered correctly by around 76% of students who were able to apply their knowledge of spirometers to the graph shown in the question.

Question 03

Despite being set as a lower demand AO1 question, only about 41% of students were able to state a positive effect of high density lipoproteins. A number of students made statements regarding muscle growth and energy production. As stated in the specification, it is important that students understand the effect that cholesterol (both HDL and LDL) can have on a person's health.

Question 04

As in the previous series, students did not always respond appropriately to the command word 'discuss'. This requires students to give both sides of an argument and should signpost them toward using more complex thinking skills to ensure that any knowledge they have regarding strengths and weaknesses is specifically applied to the situation or activity in the question. The mean mark of just over 1 reflects students' inability to do this effectively in this question. Less than 5% of students achieved more than 2 marks, which represents the lack of detail which was evident in students' answers for a 4-mark AO3 question.

Questions 05

Question 05.1 awarded 3 marks for 3 different points. These 3 points were for identifying the direction in which both gases move, showing an understanding of how partial pressure causes this to happen and explaining the role of myoglobin in the movement of gases at a muscle. Around 42% of students achieved 2 marks but only about 6% achieved 3. This was mainly due to students failing to identify the important role that myoglobin plays in gas exchange at a muscle.

Question 06

The synoptic nature of this question that draws on topics predominantly assessed separately in both components appears to have caused students problems. The question had the lowest mean mark of the three 8-mark questions. However, nearly 40% of all students achieved 4 or more marks and the marks awarded covered the full range from 0–8, demonstrating its accessibility for those who had the knowledge and skills required.

Students who achieved marks in the top band were not only able to apply their knowledge of redistribution of blood to the different stages of cryotherapy (getting in and out of the chamber), but also analyse how this vascular shunting could assist in the recovery from exercise.

Question 07

Question 07 was the highest scoring of the three 15-mark questions with a mean mark of nearly 6. This reflected students' excellent knowledge of energy systems, which, as a carryover from the legacy specification, is clearly taught in an appropriate level of detail for an A-level qualification.

Approximately 40% of students who achieved marks in band 3 and above and these students were able to apply their knowledge to different stages of the race, referencing specific split times and distances from the information provided. Around 11% of students scored in the top two bands and these students were also able to analyse the split times to highlight significant changes. They used their understanding of the different energy systems to explain why these changes were occurring. In the most effective answers, the fact that these split times represented a world record time was also acknowledged, and these answers provided a sound physiological justification of why this was possible.

Section B – Skill acquisition

Questions 08 and 09

Question 08 had the highest proportion of correct answers of the multiple-choice questions with around 88% of students correctly identifying the stages of observational learning. The mark for question 09.1 was also high with approximately 79% of students achieving the available mark.

Question 09.2 was a short answer question which also focused on positive transfer. Here, around 77% of students were able to access 1 mark but only about 27% continued to get the second mark. A common error was to make generalised statements about ensuring skills were well learned or error free. The key to making this applicable to positive transfer is that the first skill should be well learned and error free before moving onto the second skill, or negative transfer may occur.

Question 10

Question 10 was not attempted by about 6% of students. Of those who did attempt it, there was a clear split between those who knew the answer and got the full 4 marks and those who didn't and so scored no marks. Those students who gained no marks generally failed to mention either of the two types of anticipation, temporal and spatial, at any point in their answer.

Questions 11.1 and 11.2

Question 11.1 was generally answered well with around 56% of students able to give examples of positive and negative feedback in athletics. However, the students who failed to achieve full marks generally had the knowledge of what positive and negative feedback were, but they lacked the exam technique to access the available marks. Students regularly gave generic examples of positive and negative feedback or gave examples from a different sport to that which was stated in the question.

Question 11.2 was also answered well with around 93% of students achieving at least 1 mark and about 54% getting the full 2 marks. The students who were awarded 1 mark typically highlighted the importance of positive feedback on a cognitive learner but failed to evaluate the role negative feedback plays. Those who achieved the second mark nearly always described the demotivating effects of negative feedback on cognitive learners. It is important to note, however, that both forms of feedback have a role to play at each stage of learning. Students should be encouraged to think

more deeply about how and when different types of feedback could be used, moving away from the traditional black and white view that one is right/good and the other is wrong/bad.

Question 12

Question 12 was the second of the three 8-mark questions on the paper. More than half of the students were able to access the top two mark bands. These were the students who were able to not only describe Schmidt's Schema Theory but also apply it to a shot in golf. As the mark increased, there was also evidence of students stating how this would impact a coach with students highlighting the need to use varied practice or mental rehearsal. The students who were awarded top band marks were able to demonstrate both breadth and depth when discussing the implications of Schmidt's Schema Theory for a coach by stating a range of strategies but also explaining how, and more importantly why, they would be used.

Question 13

Question 13 was often answered poorly and this was for a number of reasons. Students appeared to lack knowledge of the input stage of information processing, with very few students able to show detailed knowledge of the key aspects such as the senses, DCR process and selective attention. Whatever knowledge students did have was generally applied to the cricketers at different standards but with little acknowledgement of how these differences would impact performance. Additionally, there was a lack of AO3 skills from students with regards to adapting the strategies to improve selective attention. In some cases, students were able to explain why different strategies would be best used with the different batsmen, which was deemed creditworthy, but very few talked about using one strategy in different ways.

The broad knowledge base required for this question and the students' ability to apply their knowledge to cricket meant that the mean score to still be approximately 5.43 marks, but less than 5% of students accessed the top two mark bands due to the aforementioned weaknesses in the responses seen.

Section C – Sport and society

Questions 14 and 15

Both questions 14 and 15 were well answered by students. This demonstrates that the difference between fitness and other benefits, and the characteristics of modern day professionalism were generally well understood.

Question 16

Assessing the knowledge of how Sport England works with local partners, this question had an approximate mean mark of 2, reflecting students' ability to either answer with breadth (2 AO1 marks) or depth (1 AO1 and 1 AO2 mark) but not both. County Sports Partnerships were named in the stem as a context and to give a focal point for future teaching if they are unaware of any local partners in their area. However, this was not required to be referenced in the student's response. It was clear from responses seen that students were generally unaware of local partners and frequently talked about the work of Sport England in the local area.

Questions 17.1 and 17.2

Responses to question 17.1 often lacked both the breadth and depth required to access the higher marks. This was reflected by the fact that only around 8% of students were awarded 3 or 4 marks. In less effective answers, students had not picked up on the higher demand of the question signposted by the command word 'suggest'. This meant that while they showed knowledge of the developments in transport and communication, they failed to highlight the impact these changes had on the standard of performance, and consequently failed to address the question that was asked. While the more effective answers showed the depth required, they failed to do this across a wide enough range of points.

Question 17.2 simply required students to state the two aims of the Wenlock Olympic Games. This was commonly confused with the Olympic Games and statements were made regarding high level or international competition. This lack of knowledge meant that about 64% of students failed to achieve a mark on this question. For future teaching, the Wenlock Olympic Games has its own website which has a great deal of information which staff and students may find useful.

Question 18

Question 18 had the highest mean mark of the three 8-mark questions. Students at this mark generally had a sound knowledge of social stratification and could identify a range of factors which would impact the sports that a working and upper class 15-year-old would play. As student responses progressed into band 3 marks, the quality of the AO3 skills seen improved and they started to suggest how experience during these early year via primary and secondary socialisation would positively shape the life-long participation of the upper class 15-year-old and negatively impact the life-long participation of the working class 15-year-old. The students who wrote the most successful answers were able to use their higher-order thinking skills to consider how differences in social class could have both positive and negative effects on either group. Some students went as far as discussing social mobility and the extra focus of specific programmes on increasing participation among the lower socioeconomic groups, which was very pleasing to see.

Question 19

Question 19 was the second of the two synoptic questions on this paper. The two topics were clearly identified within the question. However, the second of these, changing attitudes, was generally missed by students. This resulted in many students failing to achieve any AO3 marks when discussing the use of persuasive communication and cognitive dissonance in the 'This Girl Can' campaign or similar campaigns. As students also failed to show any knowledge of attitude as a topic area, the marks awarded were limited, with only around 17% of students being awarded 8 marks or higher for this 15-mark question. To improve this, students must be explicitly aware of the synoptic demands of the specification.

Use of statistics

Statistics used in this report may be taken from incomplete processing data. However, this data still gives a true account on how students have performed for each question.

Mark Ranges and Award of Grades

Grade boundaries and cumulative percentage grades are available on the Results Statistics page of the AQA Website.