

Physical Education

Answers and commentaries
A-level (7582)

7582-2

Marked answers from students for questions from Paper 2.
Supporting commentary is provided to help you understand how marks are awarded and how students can improve performance.

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Answers and commentaries

Please note that these responses have been reproduced exactly as they were written by the student.

Exercise physiology and biomechanical movement

Short answer questions

Question 03.1 (2018)

Figure 1 shows an athlete performing the long jump.

Figure 1



Identify **and** explain **two** external forces acting on the athlete in **Figure1**.

[4 marks]

Mark scheme

AO2 = 4

Award one mark for each of the following points.

- Air resistance (1) this will be acting in the opposite direction of travel to the jumper/will depend on the velocity of the jumper / the cross sectional area of the jumper/the streamlining/shape of the jumper (1).
- Weight/Gravity (1) this will be pulling the jumper downwards towards the sand pit/the greater the mass of the jumper the greater the weight force will be pulling the jumper down (1).

Accept other appropriate explanations of the external forces acting on the athlete.

Student responses

Response A

Force 1 Frictional force, this can be because an action force is created as they hit the board to gain height, whilst a reaction

Force 2 Air resistance, this is the external force acting against the performer in the air, which can reduce the distance she jumps

Force 1 frictional force is incorrect as it is not deemed to be wholly an external force. This is due to the requirement of muscular force, in this instance, for it to be produced. One mark is awarded for correctly identifying 'Air resistance' as force 2, but no further marks are awarded due to the lack of an explanation of how it is acting on the athlete.

1 mark

Response B

Force 1 Weight. This is the force caused by gravity acting on the performer.

Force 2 Air resistance. The performer experiences resistance as they are travelling through air.

Response B identifies both external forces and is awarded two marks for these. They fail to explain how the forces are acting on the athlete in enough detail to be credited the other two marks, however. Weight must be linked to the key term 'downwards', or similar, as this is underlined in the mark scheme. Explaining that air resistance will result in 'resistance' is deemed too vague due to the repetition of terms.

2 marks

Response C

Force 1 Air resistance is acting upon the athlete, as the air is acting in the opposite direction to the direction of the athlete's jumping motion, therefore pulling the athlete back.

Force 2 Gravity is also acting upon the athlete, as the athlete is in the air, therefore gravity is acting on the athlete to return to the ground, as it is the gravitational pull back towards the Earth.

Response C successfully accesses all four marks for this question. In addition to identifying the two external forces, they also explain these forces in enough detail. 'Back towards the ground' is considered a suitable alternative to the underlined 'downwards' in the mark scheme.

4 marks

Question 03.2 (2018)

In **Figure 1** a third class lever is operating at the hip to allow flexion.

Explain the mechanical advantage of the third class lever operating at the hip for the athlete.

[2 marks]

Mark scheme

AO1 = 1, AO3 = 1

Award one mark for each of the following points.

- **AO1** (mechanical advantage) Large range of movement / resistance or load can be moved quickly. (1)
- **AO3** By moving the legs forwards in front of them / flexing at the hip / lifting their legs higher to allow them to jump further / so legs are thrown forwards quickly to gain forwards movement and jump further. (1)

Accept other appropriate explanations of the mechanical advantage of the third class lever operating at the hip for the athlete.

Student responses

Response A

The mechanical advantage means that the long jump has a wide range of movement with minimal effort to gain height in the air.

The two marks for this question are for identifying the mechanical advantages of a third-class lever (AO1) and then explaining how this will assist the long jumper (AO3). Here, Response A only identifies the large range of motion available at the hip, without any additional information on how this can be beneficial to the athlete.

1 mark

Response B

Short effort arm means that movement can be done quickly.

Again, Response B is only able to access the AO1 mark for stating that the movement can be done quickly, with no reference to how this specifically impacts the athlete's performance of a long jump.

1 mark

Question 03 (2019)

When conducting field tests, data can be objective or subjective.

What is subjective data? Identify **one** way that it can be collected.

[2 marks]

Mark scheme

AO1 = 2

Award **one** mark for each of the following points:

- Data that involves opinions / assumptions / interpretations / beliefs / feelings / emotions (1)
- Self-analysis / questionnaire / surveys / observation / interviews (1)
- Accept any other appropriate definition of subjective data and suitable method of collecting it.

Student responses

Response A

Subjective data is data from somebody's opinion. For example when running they could say your arms are not in the correct way.

Response A is awarded bullet point 1 on the mark scheme for correctly identifying that subjective data is based on opinions. They then go on to give an example of subjective data, which is not what the question asks for, resulting in only 1 mark being awarded.

1 mark

Response B

Subjective data is biased in one way. It can be collected by opinion so maybe through a questionnaire.

Response B again achieves one mark for identifying that subjective data is based on 'opinion' but, in addition, correctly suggest that one method of collecting this type of data is 'questionnaires' (bullet point 2 on the mark scheme).

2 marks

Question 05 (2020)

Discuss the importance of fat intake to an endurance athlete.

[4 marks]

Mark scheme

A03 = 4

Positive (sub-max 3 marks):

- Source of energy for low intensity exercise, allows the endurance athlete to meet the demands of training/race/less fatigue/keeping running for longer (1).
- Spares glycogen stores, to be used in the closing stages of an event (1).
- Used for absorption of fat soluble vitamins maintaining bone density, reducing the risk of injuries, eg stress fractures (1).
- Important for maintaining health, vital for optimal performance in training and competition (1).

Negative (sub-max 3 marks):

- Too much fat can lead to heart/vascular disease, leading to the endurance athlete being unable to train (1).
- Too much fat can lead to weight gain making the endurance runner inefficient/energy wasted on carrying additional weight the endurance athlete will therefore fatigue sooner/reduce stamina (1)
- Other components of fitness may reduce e.g. decreased flexibility leading to inefficient running action/reduced speed leading to poor sprint finish (1).
- Accept other appropriate points used to discuss the importance of fat intake to an endurance athlete.

Student responses

Response A

fat is a secondary energy source for the body. fat ~~from~~ can be converted and broken down to produce energy in the presence of oxygen. fat also contains soluble vitamins which can contribute to the athlete during exercise. fats is use as insulin for the body

Response A fails to move beyond AO1 knowledge of the advantages and disadvantages of fat intake. With no reference to endurance athletes or the impact of fat intake on performance, this answer is not creditworthy.

0 marks

Response B

Fat is used as an energy source during low intensity aerobic exercise. ~~This is~~ ^{It is} important for an endurance athlete to use this as it means that they can save their glycogen stores for energy use ~~later~~ ^{so} for ~~further~~ ^{also} later on in a race. ~~This can help them gain~~ ^{Meaning they will be able to} However fat intake can cause weight gain which can slow down a performer due to added weight and possibly cause atherosclerosis

Response B successfully discusses one advantage (energy) and one disadvantage (weight gain) of fat intake. These points would not be enough on their own but are both supported by clear examples of how they would impact the performance of an endurance athlete either positively or negatively.

2 marks

Exercise physiology and biomechanical movement

Extended response questions

Question 6 (2020)

Adam Peaty has set multiple new world records in the 100m breaststroke.

Table 1 shows his performances in some major championships over a two-year period.

Year and competition	Time (seconds)	Position
2016 Olympic Games	57.13 (world record)	1st
2018 European Championships	57.00 (world record)	1st

Analyse how Adam Peaty would use Macro, Meso and Micro cycles to achieve these performances.

[8 marks]

Mark scheme

A01 = 2, A02 = 3, A03 = 3

Students are expected to answer in continuous prose, use good English, organise information clearly and use specialist vocabulary where appropriate.

Level 4

7–8 marks

- Knowledge is consistently accurate and well detailed.
- Application of breadth or depth of knowledge is clearly evident.
- Analysis and/or evaluation is coherently and consistently made between different relevant factors and their impact.
- Relevant terminology is consistently used.
- The answer almost always demonstrates substantiated reasoning, clarity, structure and focus.

Level 3

5–6 marks

- Knowledge is usually accurate and detailed.
- Application of breadth or depth of knowledge is often evident.
- Analysis and/or evaluation is often made between different relevant factors and their impact, and is usually coherent.
- Relevant terminology is often used.
- The answer usually demonstrates substantiated reasoning, clarity, structure and focus.

Level 2

3–4 marks

- Knowledge is sometimes accurate with some detail.
- Application of breadth or depth of knowledge is sometimes evident.
- Analysis and/or evaluation is sometimes made between different relevant factors and their impact, but may lack coherence.
- Relevant terminology is sometimes used.
- The answer occasionally demonstrates substantiated reasoning, but may lack clarity, structure and focus.

Level 1

1–2 marks

- Knowledge may be limited.
- Application of breadth or depth of knowledge may be limited or not evident.
- There may be little or no analysis and/or evaluation between different relevant factors and their impact.
- Relevant terminology is occasionally used.
- The answer may lack substantiated reasoning, clarity, structure and focus.

0 marks

No relevant content.

Possible content may include:

AO1 Indicative Content: knowledge of Macro, Meso and Micro cycles.

- A Macro cycle is a long-term period of training, typically one year/4 years.
- A Meso cycle is a medium-term block of training, typically spanning between 4–12 weeks.
- A Micro cycle is a short-term block of training, typically one week, or a few days.
- Cycles are part of periodisation
- The cycles are used to taper/peak.

AO2 Indicative Content: application to performance.

- The Macro cycle could be focused upon swimming a personal best time in the final of a major championship, such as Olympic Games.
- Mesocycles would be focused on a specific aspect of training such as focusing on swimming speed/reaction time off the blocks/race preparation
- A single Micro cycle would include pool-based speed work for four days and two days of land-based training, eg flexibility/strength training.
- If intensity of training increases, eg shorter, harder sessions, the volume of his training will be reduced, fewer sessions in each micro cycle.
- Peaty will taper his training, reducing the volume and or intensity of the training that is undertaken in the days leading up to the event.

A03 Indicative Content: analysis of how dividing training into Macro, Meso and Micro cycles affects performance.

- Planning meso and micro cycles which are designed with a specific component of fitness/area for development in mind can help to focus an athlete's attention, rewarding progress that is made.
- Dedicating a Meso cycle to an area of performance that needs to be developed, eg speed endurance, likely to result in improvements that will directly impact performance.
- Using Macro, Meso and Micro cycles can help Peaty to maintain high levels of motivation, by setting goals specific to each cycle, monitoring progress in each case.
- Tapering can help to avoid overtraining, reducing the likelihood of injury and reversibility.
- Tapering training in the lead up to an important event allows for physical and psychological rest and recuperation, allowing peaking to occur.
- Well planned training divided into Macro, Meso and Micro cycles makes it more likely that Peaty will peak at the right time, performing optimally in major championships.

Accept other appropriate analysis of how Macro, Meso and Micro cycles can be used to benefit performance.

Student responses

Response A

Macro Cycles last up to a
 couple years, so fit perfectly
 inbetween Olympic games. This involves
 building fitness and technique by using
 Massed practice with long training weeks. Adam
 Peaty would use this Cycle to focus
 on Quantity and Making sure

Macro cycles last for a few months leading up to a competition. This will involve more distributed practice so that the coach can give feedback to improve technique and remove bad habits. In this cycle, a Peaty would focus more on

Extra space Quality of skill as an acceptable level of fitness has been built.

Micro cycles are the couple of weeks leading up to the competition. This involves a lot more resting so performers aren't fatigued and full focus on technique and race situation. In this cycle, Peaty would focus on building nutrients for the competition and perfecting specific parts of performance.

This is a Level 1 response

Response A describes the general principles of each cycle (AO1) with some accuracy but does very little to apply this to Adam Peaty (AO2). Where AO2 is attempted it is too vague/not sport specific enough to be credited. There is no impact of using a periodised approach on performance in swimming analysed within the response (AO3).

2 marks

Response B

Periodisation is splitting time into cycles in order to maximise improvements.

Macro-cycles are long periods, ~~usually~~ ^{usually} 1-4 years, and 4 in this case, where improvement in overall performance is the goal. For example, Peaty would've potentially said "I want to make my time 57 seconds or under".

Meso-cycles are medium periods of time, weeks to months, where a specific area of performance is highlighted and improved upon. Peaty may of noticed his turns could be faster and require more work. Components of Extra space Fitness ~~can be~~ ^{are} improved also focused upon in meso-cycles. Peaty may of focused on agility in his turns in one mesocycle, and power of his arms in breaststroke in another.

He may of used weight training to improve power.

A Micro-cycle is around 1 or 2 weeks and is used to improve a detail within the goal of the meso-cycle. For example, with a meso-cycle being focused on the turn, a week micro-cycle may be used to maximise the push off of the wall. Micro-cycles can be split into individual training sessions.

Towards the end of the macro-cycle tapering will be used to reduce workload and make sure the ^{Peaty} ~~peaty~~ is in peak condition for the event.

This is a Level 3 response

Response B describes each of the cycles and applies them specifically to Adam Peaty and his swimming. This is generally done in a way that demonstrates good depth and breadth of understanding. For this reason, they are given the maximum mark which can be awarded to an answer with no AO3 which is 5. To move beyond this mark, they would need to include analysis of how structuring his training in this way would impact his performance. For specific points which could have been added refer to the AO3 section of the mark scheme.

5 marks

Question 06 (2022)

Elite-level rugby players are at high risk of suffering from musculo-skeletal injuries due to the physical nature of the sport.

Evaluate the use of screening to prevent musculo-skeletal injuries in elite rugby.

[8 marks]

Mark scheme

AO1 = 2, AO2 = 3, AO3 = 3

Students are expected to answer in continuous prose, use good English, organise information clearly and use specialist vocabulary where appropriate.

Level 4

7-8 marks

- Knowledge is consistently accurate and well detailed.
- Application of breadth or depth of knowledge is clearly evident.
- Analysis and/or evaluation is coherently and consistently made between different relevant factors and their impact.
- Relevant terminology is consistently used.
- The answer almost always demonstrated substantiated reasoning, clarity, structure and focus.

Level 3

5-6 marks

- Knowledge is usually accurate and detailed.
- Application of breadth or depth of knowledge is often evident.
- Analysis and/or evaluation is often made between different relevant factors and their impact, and is usually coherent.
- Relevant terminology is often used.
- The answer usually demonstrates substantiated reasoning, clarity, structure and focus.

Level 2

3-4 marks

- Knowledge is sometimes accurate with some details.
- Application of breadth or depth of knowledge is sometimes evident.
- Analysis and/or evaluation is sometimes made between different relevant factors and their impact, but may lack coherence.
- Relevant terminology is sometimes used.
- The answer occasionally demonstrated substantiated reasoning, but may lack clarity, structure and focus.

Level 1

1-2 marks

- Knowledge may be limited.
- Application of breadth or depth of knowledge may be limited or not evident.
- There may be little or no analysis and/or evaluation between different relevant factors and their impact.
- Relevant terminology is occasionally used.
- The answer may lack substantiated reasoning, clarity, structure and focus.

0 mark

No relevant content.

Possible content may include:

AO1 Knowledge of screening to prevent musculo-skeletal injuries

- Screening to prevent musculo-skeletal injuries involves undertaking a series of tests to establish the current musculo-skeletal condition of the athlete/current injury status.
- Screening can be used to assess/identify muscle imbalances / core strength / range of joint movement/mobility / postural alignment / stress fractures.

AO2 Application of screening to prevent musculo-skeletal injuries to elite rugby players

- Screening can identify muscle imbalances such as stronger quadriceps and weaker hamstrings which would increase the risk of the rugby player injuring their hamstring.
- Screening can identify a weakness in core muscles which would decrease stability during contact which increases the likelihood of injury.
- Screening can identify a lack of mobility in the rugby player's ankles which may place increased pressure on other joints when trying to scrummage/ruck etc.
- Screening can identify hypermobility in a rugby player's shoulder which may increase the likelihood of dislocation when tackling.
- Screening can identify postural defects which could increase the risk of injury when scrummaging/rucking/mauling.

AO3 Evaluation of the effectiveness of using screening to prevent musculo-skeletal injuries

• **Positives:**

- Screening can allow for pre-hab work so injuries are avoided and the rugby player does not miss any training or playing time.
- Based on the results of screening, conditioning programmes can be individualised to target specific weaknesses, decreasing the risk of future injuries.
- Detection of issues can allow for additional interventions such as bracing to limit the chance of injury/surgery to correct chronic issues.

- **Negatives:**

- Some screening tests are not 100% accurate and may miss a problem/provide a false negative which could lead to the rugby player picking up a more serious injury.
- Despite screening being commonplace in professional rugby, injuries still occur as some are unavoidable.
- Preventative measures such as taping/bracing/protective equipment may be more effective at preventing injuries than screening.
- Screening can incorrectly identify issues/provide false positives which can lead to a rugby player unnecessarily missing training/games while the issue is investigated which then results in a reduction in fitness levels.
- The identification of potential issues may cause the rugby player anxiety/confidence issues which would increase the likelihood of injury if the player wasn't fully committed to a tackle.

Accept any other appropriate evaluation of the use of screening to prevent musculo-skeletal injuries in elite rugby.

Student responses

Response A

Screening is using machinery which allows the musco skeletal nature of their body, to be assessed in the early stages.

Screening would be a very positive way of preventing musculoskeletal injuries in rugby as it can assess the rugby player for any underlying injuries that can't be picked up normally. This would allow the performer to understand the injuries that may be developing and this could further

Prevent injury as it would stop them from playing which could make the injury worse. However, screening has been known to bring up false positives and false negatives and this could be an issue as it may not catch a developing injury which could mean when they continue playing they could get seriously injured.

Screening can also identify past injuries that may not have

Extra space fully recovered yet. This could allow the physios to develop rehabilitation into training to further prevent these injuries.

However, screening may not be as effective in preventing injury as it is a dangerous sport using gross movements. Playing rugby alone could cause musculoskeletal injuries.

An alternative could be protective equipment such as correct footwear to prevent ankle injuries or

even shoulder pads to prevent shoulder injuries. Also, an effective session of flexibility training would help as it increases the elasticity of muscles to prevent injury.

This is a Level 2 response

This response has a breadth of knowledge regarding screening however the depth is inconsistent, and it is not always 100% accurate. This knowledge is used to make a number of evaluative points, some of which include depth. Where this answer falls down, as many observed to date, is in its lack of application to rugby. Remember that we use a best fit approach to marking however, so do not unduly penalise a response missing one of the AOs. An answer with excellent AO1 and AO3 but no AO2 can still be awarded up to 5 marks. This response does not reach this standard but is still worthy of the top of Level 2.

4 marks

Response B

Screening is the process of scanning an athlete's body to identify past and present injuries, find muscle imbalances and create suitable rehabilitation programmes. As rugby is a high-contact sport, players are often susceptible to musculo-skeletal injuries throughout their career.

One of the roles of screening is to identify past and current injuries. While this isn't explicitly focusing on preventing injuries that haven't happened yet, being able to identify where an athlete may have gone

wrong in the past would ~~be able~~ help the athlete avoid a repeat injury, by either working on their tackle technique (if the injury was a result of a poor tackle) to prevent the same thing happening again, or by training particular muscles to prevent injuries caused by weaknesses. For example, if a Rugby player has injured their shoulder from lifting in a line out, screening may show them that they need to perform strengthening exercises.

Screening can help identify muscle imbalances, which could potentially

Extra space lead to injury if neglected. This is very effective as it can allow a Rugby player to adapt their training to accommodate this before any injury happens.

However, screening is not 100% accurate, and false-positives can be misleading, which could potentially lead to greater injuries if not rectified.

In addition, screening can be used to identify athletes at risk of heart complications from exercise, which can be useful for identifying rugby players at

risk from cardiac issues' (CR4), which is effective as they could potentially avoid a major injury, but these results could also lead to anxiety and nervousness, especially if players are told not to play because of injury, which could affect their mental health.

Overall, screening is very effective in preventing musculo-skeletal injuries in rugby. However, false-positives can lead to anxiety, and could potentially force an athlete out of their career.

This is a Level 3 response

The response demonstrates good knowledge of screening. While the breadth is limited, the response makes up for this with the depth of their points. There is a clear and usually effective attempt to apply knowledge to rugby. Students should not be penalised for not being rugby experts, with valid attempts credited. The response makes a number of evaluative points. To access the top band, the student could have presented a more balanced argument with more than one negative considered.

6 marks

Question 05 (2018)

Figure 2 shows Laura Kenny cycling at the Rio 2016 Olympics.

Analyse how Laura Kenny has maximised her speed in Figure 2. Use Bernoulli's principle of lift and knowledge of the factors that influence drag.

[15 marks]

Mark scheme

AO1 = 4, AO2 = 5, AO3 = 6

Students are expected to answer in continuous prose, use good English, organise information clearly and use specialist vocabulary where appropriate.

Level 5

13-15 marks

- Knowledge is consistently comprehensive, accurate and well detailed.
- Application of breadth or depth of knowledge is clearly evident.
- Analysis and/or evaluation is coherently and consistently made between different relevant factors and their impact.
- Relevant terminology is almost always used.
- The answer demonstrates a high level of substantiated reasoning, clarity, structure and focus.

Level 4

10-12 marks

- Knowledge is usually comprehensive, accurate and detailed.
- Application of breadth or depth of knowledge is often evident.
- Analysis and/or evaluation is often made between different relevant factors and their impact, and is usually coherent.
- Relevant terminology is usually used.
- The answer usually demonstrates substantiated reasoning, clarity, structure and focus.

Level 3

7-9 marks

- Knowledge is generally accurate and sometimes detailed.
- Application of breadth or depth of knowledge is sometimes evident.
- Some analysis and/or evaluation is made between different relevant factors and their impact but may sometimes lack coherence.
- Relevant terminology is used but may sometimes be missing.
- The answer sometimes demonstrates substantiated reasoning, clarity, structure and focus.

Level 2

4-6 marks

- Knowledge is sometimes accurate but may lack detail.
- Application of breadth or depth of knowledge is occasionally evident.
- Some analysis and/or evaluation is attempted between different relevant factors and their impact, but is likely to lack coherence.
- Relevant terminology is occasionally used.
- The answer occasionally demonstrates substantiated reasoning, but may lack clarity, structure and/or focus at times.

Level 1

1-3 marks

- Knowledge is limited and may lack accuracy and detail.
- Application of breadth or depth of knowledge is likely to be limited or not evident.
- There may be very little or no analysis and/or evaluation made between different relevant factors and their impact.
- Relevant terminology used only very occasionally.
- The answer often lacks substantiated reasoning, clarity, structure and/or focus.

0 mark

No relevant content.

Possible content may include:

AO1 Knowledge of Bernoulli's principle of lift and factors affecting drag using simple statements

- Bernoulli's principle is to do with lift force and downforce created when air flows over an aerofoil or object. Where there is an increase in the velocity of air there is a decrease in the pressure. Where flow is fast, pressure is low and where flow is slow, pressure is high.
- Lift force is a force that acts perpendicular to the direction of travel.
- Drag acts in the opposite direction of motion and so will slow something down. There are two types of drag, surface drag and form drag. Factors that affect drag include the velocity of the body or air, the cross sectional area, the shape of the body and type of surface.

AO2 Application of Bernoulli's principle of lift and factors affecting drag to the cyclist

- Due to the streamlined position of the Laura Kenny air travelling over the top of her has a shorter distance to travel than the air underneath. This means the air above is travelling at a slower velocity, which therefore creates a higher pressure. This creates a downward lift force with the tyres applying more force to the track.
- Drag acts in the opposite direction of motion and so will be slowing Laura Kenny down. In order to minimise the amount of drag Laura Kenny can consider the factors that affect drag including, her cross sectional area, the shape she makes on the bike and type of surface. Therefore, as shown in Figure 2 Laura Kenny wears a streamlined helmet, tight clothing and adopts a streamlining position on the bike i.e. her back is parallel to the track, her arms are tucked in close to her body which all

reduce form drag. To reduce surface drag the tyres are very thin on the bike and her suit is very smooth.

A03 Analysis/evaluation of Bernoulli's principle of lift and factors and the impact of reducing drag to allow the cyclist to achieve a faster speed

- Factors that affect drag include the speed Laura Kenny is travelling at, the cross sectional area of the Laura Kenny's body and bike, the shape of Laura Kenny and type of surface. Therefore, as shown in Figure 2 Laura Kenny can reduce drag by wearing a streamlined helmet. This is beneficial because it will allow the air to pass quicker over the top of the helmet reducing the drag created which means Laura Kenny can cycle faster.
- Although speed is a factor that can influence drag, Laura will use the other factors such as her clothing and body position to ensure she cycles as fast as she can therefore she won't reduce her speed in order to reduce drag.

Credit other relevant analysis of how a cyclist can increase their speed using Bernoulli's principle of lift and knowledge of the factors that influence drag.

Student responses

Response A

Based on the Bernoulli's principle of lift, there is low pressure above the object ~~and~~ whereas the higher pressure is below. ~~This allows the air to~~ In this case, there will be a lower pressure above the bike and a higher pressure below.

There are also factors which can influence drag. Firstly, by having a smooth surface, this will help increase Laura Kenny's speed as ~~the~~ her movement and the wheels of the bike will be more efficient. As well, the weight of the bike can influence drag. ~~as~~ The bike is very thin and considered light, therefore it can increase the speed of Laura Kenny's cycling as ~~an~~ an increased weight would

cause more air resistance to hold back the bike.

Bernoulli's principle allows the bike to stay lifted so that with which will help maximise her speed due to there not being any low pressure below her, which would drag her down.

This is a Level 1 response

The knowledge of Bernoulli's principle in Response A is very limited and most often inaccurate. They clearly misunderstand the air pressures involved in this scenario, and resultant forces, so no application marks can be awarded. The student's one mark is for their knowledge and very limited application of the factors affecting drag. 'Smooth surface' is too vague to be credited, but their description of the weight and shape of the bike is enough to access the bottom of Level 1. The answer often lacks substantiated reasoning, clarity, structure and/or focus.

1 mark

Response B

Bernoulli's principle of lift states that the pressure of air below an object is high as there is more distance for the air to travel, and the pressure of air above the object is low as there is less distance for the air to travel. This causes lift at the object of the object, and maximises speed. Drag is the air behind the object. As drag decreases, the object is able to

travel faster. This is influenced by surface characteristics, the ~~cross-section~~ cross-sectional area and the velocity of the object.

Laura Kenny, in figure 2, has maximised her speed. By wearing a tear drop helmet, she has reduced the distance the air has to travel. This lowers the pressure. She also lowers pressure by crouching over the bike as the air travels less distance.

Therefore the Bernoulli principle of lift is enabled to maximise her speed. To reduce drag, Laura's cross-sectional area is reduced through creating a streamlined, small

area. This is achieved through the tear drop helmet, crouching position
Extra space and thin frame of the

bike. This is advantageous to Laura as she can maximise her speed and have less resistance. Laura also manipulated her surface characteristics bike as the air travels less distance.

Therefore the Bernoulli principle of lift is enabled to maximise her speed. To reduce drag, Laura's cross-sectional area is reduced

through creating a streamlined, small area. This is achieved through the aerodynamic helmet, crouching position and thin frame of the bike. This is advantageous to Laura as she can maximise her speed and have less resistance. Laura also manipulated her surface characteristics. Her clothing is tight, meaning that there is less friction between the air and her body. She also most likely shaved her legs and arms to create less friction. This allows her to have reduced drag which means she can cycle at a greater speed. Finally, Laura's velocity is high, which usually increases drag. However, her manipulation of body cross-sectional area and surface characteristics keeps her drag low. Therefore, she has successfully reduced her drag and is able to travel faster and her race timing is reduced dramatically.

This is a Level 3 response

Response B can clearly be considered in two parts. While their ability to recall Bernoulli's principle is evident, they have clearly not understood it in enough detail to consider how it creates a downwards force in this scenario. That said, the student has answered the other part of the question relating to drag very well. They clearly have breadth of knowledge relating to the factors which affect drag, and their depth of knowledge is evident in their application to Laura Kenny and analysis of the impact on her speed. As they have only successfully answered one half of the question (albeit the side with more content) the maximum mark which can be awarded is 9.

9 marks

Question 07 (2022)

Analyse how an athlete can maximise the distance a discus travels.

Use your knowledge of the factors affecting horizontal displacement of projectiles and the Bernoulli principle in your answer.

[15 marks]

Mark scheme

AO1 = 4, AO2 = 5, AO3 = 6

Students are expected to answer in continuous prose, use good English, organise information clearly and use specialist vocabulary where appropriate.

Level 5

13–15 marks

- Knowledge is consistently comprehensive, accurate and well detailed.
- Application of breadth or depth of knowledge is clearly evident.
- Analysis and/or evaluation is coherently and consistently made between different relevant factors and their impact.
- Relevant terminology is almost always used.
- The answer demonstrates a high level of substantiated reasoning, clarity, structure and focus.

Level 4

10–12 marks

- Knowledge is usually comprehensive, accurate and detailed.
- Application of breadth or depth of knowledge is often evident.
- Analysis and/or evaluation is often made between different relevant factors and their impact, and is usually coherent.
- Relevant terminology is usually used.
- The answer usually demonstrates substantiated reasoning, clarity, structure and focus.

Level 3

7–9 marks

- Knowledge is generally accurate and sometimes detailed.
- Application of breadth or depth of knowledge is sometimes evident.
- Some analysis and/or evaluation is made between different relevant factors and their impact, but may sometimes lack coherence.
- Relevant terminology is used but may sometimes be missing.
- The answer sometimes demonstrates substantiated reasoning, clarity, structure and focus.

Level 2

4–6 marks

- Knowledge is sometimes accurate but may lack detail.
- Application of breadth or depth of knowledge is occasionally evident.
- Some analysis and/or evaluation is attempted between different relevant factors and their impact, but is likely to lack coherence.
- Relevant terminology is occasionally used.
- The answer occasionally demonstrates substantiated reasoning, but may lack clarity, structure and/or focus at times.

Level 1

1–3 marks

- Knowledge is limited and may lack accuracy and detail.
- Application of breadth or depth of knowledge is likely to be limited or not evident.
- There may be very little or no analysis and/or evaluation made between different relevant factors and their impact.
- Relevant terminology used only very occasionally.
- The answer often lacks substantiated reasoning, clarity, structure and/or focus.

0 mark

No relevant content

Possible content may include:

AO1 Knowledge of the factors affecting horizontal displacement of projectiles and the Bernoulli principle

- Angle of release, dependent on the height of release and height of landing of the projectile.
- Speed of release, the greater the speed of release, the greater the horizontal displacement of the projectile.
- Height of release, the greater the release height, the greater the horizontal displacement.
- The Bernoulli principle states where air flow is fast over the surface of an object pressure is low, where air flow is slow over an object pressure is high

AO2 Understanding of how the factors affecting horizontal displacement of projectiles and the Bernoulli principle affect the flight of a discus

- Release height of discus out of the athlete's hand is greater than the landing height.
- The faster the athlete spins in the circle the greater the speed of release.
- Height of release depends on the height of the athlete / technique.
- The discus needs to be thrown with the optimal angle of attack for the Bernoulli principle to take effect (this is between 25 and 40 degrees).
- Athlete throwing the discus will try to optimise the speed, height and angle of release as well as the angle of attack.

A03 Analysis of the impact the factors affecting horizontal displacement of projectiles and the Bernoulli principle will have on the distance the discus travels

- (Release height of discus out of the athlete's hand is greater than the landing height) therefore the optimum angle of release is less than 45° .
- If the angle of release is above optimal the speed of release will be slower due to air resistance meaning the discus will travel a shorter distance before landing.
- The speed of release can be increased by improving the throwers power / suitable training method.
- Taller athletes with better technique will be able to optimise horizontal displacement due to a greater height of release.
- If the angle of attack is optimal, air travelling over the top of the discus will have further to travel, travelling faster, creating low pressure.
- Air travelling under the discus will have less distance to travel, moving slower creating high pressure.
- Air will move from high to low pressure creating lift and optimising the distance the discus travels.

Accept any other appropriate analysis of the factors affecting horizontal displacement of projectiles and the Bernoulli principle's impact on the distance a discus travels.

Student responses

Response A

A discus is an aerodynamic shape. This means air has to travel further above the discus. This means the air is travelling at a higher velocity, so it will have a low pressure. This also means that the air has less to travel under the discus so it is at a low velocity, so has high pressure. Bernoulli's principle states that the air will move from a high pressure, under the discus, to low pressure, above the discus, causing lift. Horizontal displacement is the shortest distance from a starting point to a finishing point parallel to the ground. By increasing lift you increase the horizontal distance of the

projectile. There are 3 factors that affect horizontal displacement. The first one is angle of release. The closer the angle of release is to the optimum angle for that particular skill the increased horizontal displacement the ~~object~~^{projectile} will have. For an athlete in discus the optimum angle is around 45° . This will produce the furthest horizontal displacement. This is because if the angle is too high the discus will end upright in the air and will lose its aerodynamic shape. Air resistance will even slow the projectile down and gravity will pull it towards the ground producing very little horizontal displacement. The second factor is speed of release. The sooner the speed of release the further the horizontal displacement. An athlete should aim to release the discus at the highest speed possible to get further horizontal displacement. This would lead to them being more likely to win as they go the furthest distance. The height of release is the third factor. This is where the higher the projectile is released the further the horizontal displacement. A discus performer should aim to release the discus as high as possible. This will increase their chances of winning as it increases horizontal displacement. An athlete can improve their strength to increase the force of contraction at their arms.

This will increase the speed of release which can increase horizontal distance. The
Extra space further the distance the more likely they are to win.

This is a Level 4 response

The response fully meets the demands of the fluid mechanics aspect of the question, analysing how Bernoulli's principle will contribute to maximising the distance a discus will travel. The other part of the question, linked to factors affecting horizontal displacement, is more inconsistent. While the knowledge is good these factors are not applied specifically to the event, with limited consideration as to how they can be manipulated to maximise the horizontal displacement.

10 marks

Response B

A factor affecting horizontal displacement is height of release as the higher the release point is the further an object may travel. To maximise this a discus thrower may have a longer follow through and release at a higher point. As the point where it the discus lands is lower any increase in height will help to increase the distance of the throw.

Another factor that affects horizontal displacement is the speed of ~~the~~ release. A discus thrower may want to spin to create momentum which will increase the distance as the more speed there is behind an object the further it goes.

Another ~~area~~ factor of horizontal displacement is angle of release. As the ~~a~~ height of release is higher than the height of where the discus lands is lower. This means the angle of release has to be less than 45° to ensure maximal distance to be achieved. This helps to increase horizontal displacement.

Bernoulli's principle is where an object uses high and low pressure to create up/downwards lift. When a discus is thrown it is ~~an~~ as an aerofoil object it needs to be thrown at a slight upwards angle. This ~~slows down~~ ^{speeds up} the air traveling over the top which creates a low pressure. Due to this angle the air traveling underneath slows down creating a high pressure. This causes upwards lift which helps the discus achieve more horizontal displacement. Therefore a athlete can use the angle of the discus to maximise ~~horizon~~ the distance travelled.

Level 5

The student demonstrates accurate knowledge, application and analysis of how Bernoulli's principle can be utilised in discus to maximise horizontal displacement. What pushes this response into band 5 is its ability to consistently and accurately access AO2 and AO3 marks in relation to the factors affecting horizontal displacement. They consider how technique will impact height/speed of release and that the discus is released from a higher point than it lands so optimal angle of release is less than 45 degrees.

13 marks

Sports Psychology

Short answer questions

Question 8.1 (2018)

Identify three other characteristics of an individual with a need to achieve (Nach) personality.

[3 marks]

Mark scheme

AO1 = 3

Award one mark for each of the following points.

- Seek out challenging situations / competitive (1)
- Takes risks (1)
- Task persistence / mastery orientation (1)
- Not afraid of failure (1)
- Value feedback from others / coach / accepts criticism (1)
- Attribute performance to internal factors / effort / ability / attribute failure to external factors (1)

Accept first three answers only.

Accept other appropriate identification of characteristics of an individual with approach behaviour.

Student responses

Response A

1. Confident
2. Optimistic
3. Attribute failure to external factors.

Response A is awarded one mark for the third point (bullet point 6 on the mark scheme). Confident and optimistic are not creditworthy answers.

1 mark

Response B

1. takes 50/50 risks.
2. welcomes feedback and evaluation.
3. confident in their ability.

Response B is awarded bullet points 2 and 5 on the mark scheme. Answer 3 (confident) is not an acceptable answer.

2 marks

Question 11.1 (2019)

Describe an outcome-oriental goal.

[1 mark]

Mark scheme

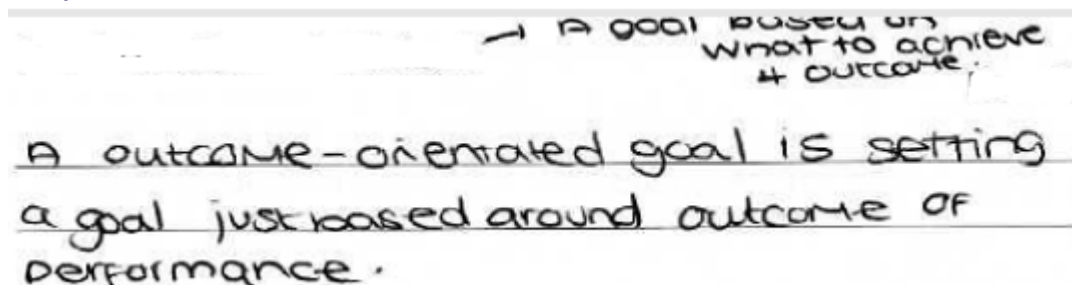
AO1 = 1

A goal set against the performance of others / based on a result (1)

Accept any other appropriate description of an outcome-orientated goal.

Student responses

Response A

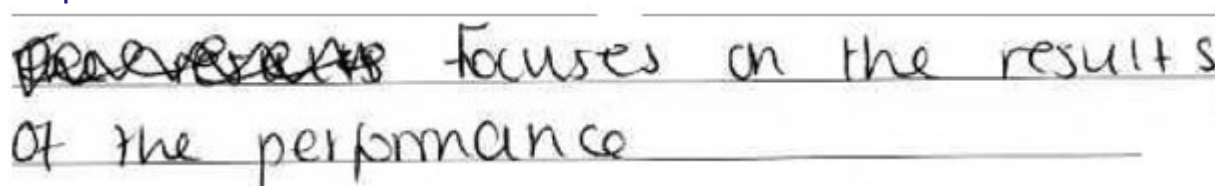


Handwritten student response A: A goal based on what to achieve + outcome.
A outcome-orientated goal is setting a goal just based around outcome of performance.

Response A is not awarded a mark for the answer as it is not creditworthy to use the word outcome in the description of an outcome goal.

0 marks

Response B



Handwritten student response B: ~~Performance~~ focuses on the results of the performance

Response B correctly identifies that an outcome goal is one that focuses on the result.

1 mark

Question 10.1 (2019)

Explain the possible impact of an audience on a performer in the cognitive stage of learning.

[3 marks]

Mark scheme

AO2 = 3

Award **one** mark for each of the following points:

- Presence of an audience increases arousal. (1)
- Increased arousal leads to increase in likelihood of dominant response occurring. (1)
- Dominant response of a cognitive performer will be incorrect. (1)
- This is known as social inhibition. (1)
- Evaluation apprehension where performance decreases through the perception of being judged. (1)

Accept other appropriate explanations of the impact of an audience on a cognitive performer. Answers must be specifically linked to performers in the cognitive state of learning.

Student responses**Response A**

~~Actual productivity = Potential productivity - anxiety processes~~

- The performer may be over aroused ~~as~~ as they aren't used to seeing so many people watching them
- Social inhibition could occur as they perform worse with an audience
- They may think they are being judged by the audience which is evaluation apprehension

Response A is only awarded 1 mark for correctly identifying that social inhibition could occur (bullet point 4 on the mark scheme). No mark is awarded for 'the performer may be over aroused' as drive theory, which Zajonc's model is linked to, does not consider over and under arousal. Increased arousal is required for bullet point 1 on the mark scheme. The final point regarding evaluation apprehension is also considered too vague as it does not link to a negative impact on performance.

1 mark

Response B

Presence of a passive audience will increase arousal levels. As the dominant response of a cognitive performer is not developed the ~~performance~~^{performer} will be inhibited and performance will be poor.

Response B correctly explains that the presence of an audience will lead to increased arousal (bullet point 1 on the mark scheme) and that the performance will be inhibited (bullet point 4 on the mark scheme). The statement that the dominant response of a cognitive performer is not developed is considered too vague for the third mark as this does not imply that it is incorrect.

2 marks

Response C

can lead to social inhibition - negative effects of audience on performance.
Can lead to evaluation apprehension - performance is affected if person believes they are being judged.
^{high}~~Over~~ arousal leading to dominant response more likely to occur. For a ~~new~~ cognitive performer this is likely to be incorrect.

Response C achieves all three available marks for correctly identifying bullet points 4, 2 and 3 on the mark scheme. No marks awarded for evaluation apprehension as does not link to impact on performance.

3 marks

Question 09.2 (2018)

Explain when a coach would use the autocratic and laissez-faire styles in a sporting context.

[2 marks]

Mark scheme

AO2 = 2

Award **one** mark for each of the following points.

Autocratic

Used when quick decisions need to be made / with large groups / when discipline is needed/inexperienced tea /novices/cognitive learners/dangerous situations / least/most favourable situations. (1)

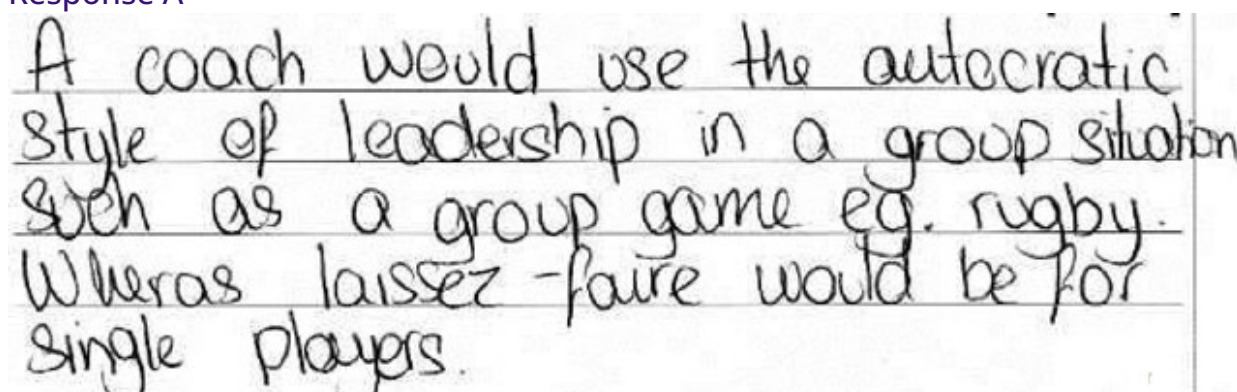
Laissez-faire

Used when time is available / experienced performers / autonomous learners / more motivated / no danger. (1)

Accept other appropriate explanations of when a coach would use each style in a sporting context.

Student responses

Response A



A coach would use the autocratic style of leadership in a group situation such as a group game eg. rugby. Whereas laissez-faire would be for single players.

This answer is not creditworthy as the distinction between team and individual sports is too vague to suitably explain why autocratic might be used in one and laissez-faire in the other.

0 marks

Response B

An autocratic leadership style may be used when the group consists of novices where danger may be an influencing factor in a sport such as rock climbing. Laissez-Faire may be used when the group is experienced, in which they can carry out football drills out by themselves.

Response B correctly identifies that an autocratic style maybe used with 'novices' and a laissez-faire style with 'experienced' performers.

2 marks

Question 12 (2022)

Evaluate the impact of extrinsic rewards on a performer's motivation.

[3 marks]

Mark scheme

A03 = 3

Positive impact (sub max 2)

- They can be useful to enhance the motivation of the performer as it gives them something to aim for/work towards/persist until they achieve the reward. (1)
- They can enhance motivation for activities that the performer finds particularly difficult/unenjoyable/tedious. (1)

Negative impact (sub max 2)

- They could damage the performer's intrinsic motivation / athlete becomes reliant on extrinsic as they may not want to continue when they no longer have the reward available. (1)
- If a performer doesn't achieve the extrinsic reward, this could damage their motivation as they may feel as though they have failed. (1)

Accept any other appropriate evaluation of the impact of extrinsic rewards on a performer's motivation.

Student responses**Response A**

It can help a player succeed, because with trophies there's always something to fight for and this means they have an aim to focus on, which will increase motivation. Money is also a proven factor that increases motivation because it can be the key to people's happiness and can change people's lives, so if the best performers get more money, that encourages players to get better, as they will get the better pay cheques.

Mark scheme bullet point 1 is awarded. This same point is then repeated later in the script so cannot be credited second time. There are no other AO3 points made. The answer purely focuses on the positives and fails to consider both sides of the argument, as required by an 'evaluate' question.

1 mark

Response B

Extrinsic rewards in the form of medals and trophies can increase a performer's motivation as they are given something ^{as a response to} good, ~~from~~ their good performance. It is mainly beneficial for cognitive learners as it is a physical reward to the performer. Likewise, coaches praise helps to build motivation to continue and it produces feelings of pride and builds confidence. However, sometimes athletes can depend on extrinsic rewards and when they don't achieve a reward they will quickly lose motivation to continue.

The response is credited under mark scheme bullet points 1 and 4. This response does provide both sides of the argument. Further breadth, providing an additional point for one side or the other, would have accessed the third mark.

2 marks

Sports psychology

Extended response questions

Question 12 (2019)

Crystal Palace are a professional football club. The team lost their first seven games of the 2017-2018 English Premier League season.

Analyse how players may attribute these defeats and the effect this may have had on their performance at this point in this season.

Refer to Weiner's model of attribution theory.

[8 marks]

Mark scheme

A01 = 2, A02 = 3, A03 = 3

Students are expected to answer in continuous prose, use good English, organise information clearly and use specialist vocabulary where appropriate.

Level 4

7-8 marks

- Knowledge is consistently accurate and well detailed.
- Application of breadth or depth of knowledge is clearly evident.
- Analysis and/or evaluation is coherently and consistently made between different relevant factors and their impact.
- Relevant terminology is consistently used.
- The answer almost always demonstrates substantiated reasoning, clarity, structure and focus.

Level 3

5-6 marks

- Knowledge is usually accurate and detailed.
- Application of breadth or depth of knowledge is often evident.
- Analysis and/or evaluation is often made between different relevant factors and their impact, and is usually coherent.
- Relevant terminology is often used.
- The answer usually demonstrates substantiated reasoning, clarity, structure and focus.

Level 2

3-4 marks

- Knowledge is sometimes accurate with some detail.
- Application of breadth or depth of knowledge is sometimes evident.

- Analysis and/or evaluation is sometimes made between different relevant factors and their impact, but may lack coherence.
- Relevant terminology is sometimes used.
- The answer occasionally demonstrates substantiated reasoning, but may lack clarity, structure and focus.

Level 1

1-2 marks

- Knowledge may be limited.
- Application of breadth or depth of knowledge may be limited or not evident.
- There may be little or no analysis and/or evaluation between different relevant factors and their impact.
- Relevant terminology is occasionally used.
- The answer may lack substantiated reasoning, clarity, structure and focus.

0

No relevant content.

Possible content may include:

AO1 Knowledge of Weiner's model of attribution theory

- Attribution is the perceived reason for success or failure
- Weiner's model has locus of causality, which is internal or external
- And locus of stability, which is stable or unstable
- This gives four attributions: ability, effort, task difficulty and luck
- Ability – natural levels of talent
- Effort – how hard a performer tries
- Task difficulty – strength of opposition/challenge of activity
- Luck – unpredictable events
- Locus on control/controllability dimension

AO2 Application of Weiner's model to team performance

- A player could attribute the defeats to external-stable factors, which relates to task difficulty. The player may believe that they have had some tough games at the start of the season and the opposition has just been too tough
- A player could attribute defeat to external-unstable factors that relate to luck. They may believe they have had bad luck in, for example the referee's decisions
- A player could attribute the team's defeats to internal-unstable factors that relates to effort. They may believe the team just did not try very hard in the first few games
- A player could attribute the defeats to internal-stable factors, which relates to ability, for example, they do not believe they have good enough players to be in the Premier League or as a team, they simply are not good enough
- A player could attribute the defeats to controllable factors such as the tactics not being right which is something that can be changed

A03 Analysis of the attribution and its impact on performance

- Usually if players attribute defeat to external factors, i.e. the difficulty of the opposition or luck then it is most likely that the players will remain motivated/confident e.g. there is easier opposition coming up so more likely to win. This is the self-serving bias
- Players are also more likely to remain motivated/confident if they attribute the defeats to effort as this can be rectified and changed if, for example that they need to work harder in training / games to improve this factor
- Problems with motivation/motivation arise if the attribution for defeat is given to ability as if the players do not believe as a team / individuals are good enough to be in the Premier League then this could lead to a demotivated team and have a negative effect on effort which could lead to further defeats
- This is learned helplessness
- A coach may then need to do some attribution retraining to change the reasons for failure to external factors
- Encourage attributions of losses to external, unstable factors and any future wins / good performances they may have to internal stable, known as the self-serving bias.

Accept any other appropriate analysis of Weiner's Model of Attribution and the affect it has on motivation.

Student responses

Response A

An attribution is the reason given for an outcome, in this scenario, the reason given for 7 consecutive losses. Weiner's model suggested that attributions can be split into two loci. The locus of causality is the cause and it can be either internal or external. Internal is attributed to oneself, such as ability or effort and external is environmental factors such as task difficulty or luck. The second dimension is the stability dimension which is split into stable meaning it is unlikely to change in the long term, such as ability or

team ability / task difficulty. Or it could be unstable, meaning it frequently changes, such as luck or effort. After the first few losses, it is likely that ^{the} Crystal Palace team would have started to attribute the loss to internal, stable factors such as ability. This is not the ideal thing to do as it then would have likely lead to a lack of confidence and feelings of learned helplessness. Learned helplessness can be either global - meaning you believe you lack ability in all sporting situations - or specific - meaning you lack ability in a certain situation.

Having this mentality would have ~~lead~~ resulted in very poor performances that meant the team continued to perform badly. A lack of confidence can result in anxiety, specifically cognitive which can severely deteriorate performance due to lack of concentration and focus.

However it could be argued that we can't generalise this to the whole team and that perhaps certain individuals who felt they were better performers may not have attributed their losses to this.

This is a Level 2 response

Response A shows very good knowledge of Weiner's model and this takes up large parts of their answer. There is some application, although the breadth of this is limited. Examples could have been given for what each attribution might look like in football. For example, task difficulty is the quality of the team you are playing against. Finally, the student analyses the impact of their attributions on performance only focusing on the negative effects linked to learned helplessness. As professional athletes, it is likely the players were able to use a self-serving bias to maintain motivation and task persistence. None of this is covered resulting in the answer being awarded a Level 2 mark of 4.

4 marks**Response B**

Attribution is attaching a meaning to an outcome. Weiner's Model suggests that attribution is split into two, locus of causality and stability dimension.

one way the players could have attributed the losses are external, unstable reasons, e.g. we were unlucky that the game was lost - the ball was a little flat. This is self serving bias, where motivation remains high so task persistence remains high. As a result, players will have a positive attitude going into the next game. However, 7 games were lost in a row.

This is more likely to be because the players attributed the losses to internal, stable reasons, e.g.

ability. By attributing a loss to oneself, players may begin to lose motivation and task persistence may decrease. As a result, players will continue to experience feelings of worthlessness and decrease effort going into the next game.

One effect that this may have had on players is that they could have experienced learned helplessness. This is the idea that players lack the ability to complete a certain skill, e.g. Crystal Palace players thinking they're not good enough. This may be specific, or can be widened to global learned helplessness, where players begin to hold negative attitudes about themselves in all ball sports, e.g. I'm bad at football. So I must be bad at rugby.

This is a Level 3 response

Response B also demonstrates good knowledge of Weiner's model, but the response is presented in a way which includes a much greater breadth of application. Examples from football are given to support most of the key terminology which is used throughout the answer. This response also considers both that the players may be using a self-serving bias or suffering from learned helplessness. To move into the top band, a more in-depth analysis of the impact of these attributions of the footballer's motivation and performance would be required.

6 marks

Question 13 (2022)

A badminton player is suffering from learned helplessness.

Analyse the strategies a coach could use to help the player overcome learned helplessness and improve their performance.

[8 marks]

Mark scheme

AO1 = 2, AO2 = 3, AO3 = 3

Students are expected to answer in continuous prose, use good English, organise information clearly and use specialist vocabulary where appropriate.

Level 4

7–8 marks

- Knowledge is consistently accurate and well detailed.
- Application of breadth or depth of knowledge is clearly evident.
- Analysis and/or evaluation is coherently and consistently made between different relevant factors and their impact.
- Relevant terminology is consistently used.
- The answer almost always demonstrates substantiated reasoning, clarity, structure and focus.

Level 3

5–6 marks

- Knowledge is usually accurate and detailed.
- Application of breadth or depth of knowledge is often evident.
- Analysis and/or evaluation is often made between different relevant factors and their impact, and is usually coherent.
- Relevant terminology is often used.
- The answer usually demonstrates substantiated reasoning, clarity, structure and focus.

Level 2

3–4 marks

- Knowledge is sometimes accurate with some detail.
- Application of breadth or depth of knowledge is sometimes evident.
- Analysis and/or evaluation is sometimes made between different relevant factors and their impact, but may lack coherence.
- Relevant terminology is sometimes used.
- The answer occasionally demonstrates substantiated reasoning, but may lack clarity, structure and focus.

Level 1

1–2 marks

- Knowledge may be limited.
- Application of breadth or depth of knowledge may be limited or not evident.
- There may be little or no analysis and/or evaluation between different relevant factors and their impact.
- Relevant terminology is occasionally used.
- The answer may lack substantiated reasoning, clarity, structure and focus.

0

No relevant content.

Possible content may include:

AO1 Knowledge of the strategies to avoid learned helplessness

- Learned helplessness is the belief that failure is inevitable.

Strategies include:

- allowing success/reminding performer of previous successful performances
- positive feedback – feedback highlighting the good points of a performance
- setting performance/process goals – goals focused on improving own personal standards/techniques
- attribution retraining – changing a performer's perception of failure, success to internal-stable factors and failure to external factors.

AO2 Application of the strategies to avoid learned helplessness on the badminton player

- The badminton player competes against a weaker player/competes in a lower league to experience success.
- The badminton player is reminded of a match last season where they played some excellent drop shots.
- Coach tells the badminton player that they have an excellent low serve.
- Setting a target of improving technique for an overhead clear/number of successful serves over the net.
- Attributing success to ability, 'I won because I played effective smash shots during the match' and failure to luck 'I lost because I picked up an injury before the match' or task difficulty 'a lost because I played against an opponent from a higher league'.

AO3 Analysis of the impact of the strategies to avoid learned helplessness on the badminton player

- Allowing success will mean that the performer will have a positive experience reassuring them that success is possible, therefore increasing their belief that they can be successful in future, more challenging situations.
- Positive feedback will mean that the coach will persuade the performer that they do have the ability, so they will believe it for themselves.
- Setting performance/process goals will mean that the performer will gain a sense of confidence when they achieve their goals, encouraging them to be more persistent in future.

- Setting performance/process goals will be better than setting outcome goals as the performer will focus on themselves and not comparing themselves to others.
- Attribution retraining will mean that the performer will believe that success is due to their ability, which will lead to self-serving bias.
- These strategies will ensure that the performer no longer believes that failure is inevitable and will ensure that the performer persists resulting in an improvement in their performance, such as improved quality of serve/more confidence to attempt difficult shots, such as smash shots.

Accept any other appropriate analysis of the strategies a coach could use to help the player overcome learned helplessness and improve their performance.

Student responses

Response A

Learned helplessness is when a performer starts to attribute their failure to internal and stable causes. For example, the Badminton player may say "I do not have the ability". The coach needs to attempt to turn those negative thoughts into positive ones and this can be done via attribution retraining. One strategy the Badminton coach could do is use Bandura's model of self efficacy which would increase their confidence meaning they have a better chance of improving performance. An example of this is vicarious experiences. The coach could get a badminton player

who is the same ability to perform a drop shot perfectly - which they may be struggling with. Another strategy they could do is point out the past successes they have done of the drop shot which will encourage them into thinking they can do it again. Another strategy they could implement is setting achievable process and performance goals. This extra space would help improve performance as the badminton player would have aims and goals to aim for. The coach could also give positive reinforcement and praise to the badminton player every time a drop shot is done. This would improve motivation and therefore leading to an increase in performance. The coach also needs to teach the performer to start attributing success to internal factors such as ability instead of external factors such as luck. This would change their mindset and therefore improve performance for the better. Cognitive dissonance and persuasive communication could also be used to help change their attitude when playing badminton.

This is a Level 3 response

The response demonstrates a breadth of knowledge but with only 'improving self-efficacy' considered in any depth. The points relating to Bandura's model are mostly applied to badminton. The AO1 and AO2 is good. While there is one AO3 highlighted in the script, this is a very weak AO3 and, as with other attempts, fails to articulate in any detail how the strategies suggested will overcome learned helplessness. This should be evident to some degree in top band responses.

5 marks

Question 14 (2020)

Analyse the faulty group processes which could have caused this defeat and the strategies which can be used to address specific faulty processes.

[15 marks]

Mark scheme

AO1 = 4, AO2 = 5, AO3 = 6

Students are expected to answer in continuous prose, use good English, organise information clearly and use specialist vocabulary where appropriate.

Level 5

13–15 marks

- Knowledge is consistently comprehensive, accurate and well detailed.
- Application of breadth or depth of knowledge is clearly evident.
- Analysis and/or evaluation is coherently and consistently made between different relevant factors and their impact.
- Relevant terminology is almost always used.
- The answer demonstrates a high level of substantiated reasoning, clarity, structure and focus.

Level 4

10–12 marks

- Knowledge is usually comprehensive, accurate and detailed.
- Application of breadth or depth of knowledge is often evident.
- Analysis and/or evaluation is often made between different relevant factors and their impact, and is usually coherent.
- Relevant terminology is usually used.
- The answer usually demonstrates substantiated reasoning, clarity, structure and focus.

Level 3

7–9 marks

- Knowledge is generally accurate and sometimes detailed.
- Application of breadth or depth of knowledge is sometimes evident.
- Some analysis and/or evaluation is made between different relevant factors and their impact, but may sometimes lack coherence.
- Relevant terminology is used but may sometimes be missing.
- The answer sometimes demonstrates substantiated reasoning, clarity, structure and focus.

Level 2

4–6 marks

- Knowledge is sometimes accurate but may lack detail.
- Application of breadth or depth of knowledge is occasionally evident.
- Some analysis and/or evaluation is attempted between different relevant factors and their impact, but is likely to lack coherence.
- Relevant terminology is occasionally used.
- The answer occasionally demonstrates substantiated reasoning, but may lack clarity, structure and/or focus at times.

Level 1

1–3 marks

- Knowledge is limited and may lack accuracy and detail.
- Application of breadth or depth of knowledge is likely to be limited or not evident.
- There may be very little or no analysis and/or evaluation made between different relevant factors and their impact.
- Relevant terminology used only very occasionally.
- The answer often lacks substantiated reasoning, clarity, structure and/or focus.

0

No relevant content.

Possible content may include:

AO1 Indicative Content: knowledge of factors causing faulty group processes and the strategies to address faulty processes.

- Steiner's model suggests Actual Productivity = Potential productivity – Losses due to faulty group processes.
- Faulty group processes caused by co-ordination and motivational losses.
- Social loafing – motivational losses due to lack of confidence or feeling under-valued.
- Ringelmann effect, the effort exerted by group members, larger groups can result in less effort being exerted by each individual.
- Strategies: social activities, video analysis, performance goals, establishing clear roles, praising/rewarding cohesive behaviour.

AO2 Indicative Content: application of knowledge of factors which negatively affect group productivity and the strategies to address faulty processes

- Application of factors:
 - England may have suffered from co-ordination losses, such as tactics not working, positional role unclear, lack of communication between players, not employing coaches' tactics.
 - England may have suffered motivational losses, such as social loafing - players may not track back/work hard to win the ball back when they are losing.
 - England squad would have had a large squad meaning Ringelmann effect may have occurred as players may have been lost in the squad.
- Application of strategies:

- England manager could have arranged social activities before the tournament started to develop social cohesion e.g. team building activities.
- Manager could have set whole team goals, such as further progression in the tournament, or individual performance goals such as increasing completion rate of passing during a match.
- Manager could have ensured roles were clear e.g. establishing clear roles during set plays.
- Manager could have praised players who were demonstrating good team play, such as tracking back when the ball had been lost.
- Employ GPS tracking during training/matches, capturing the distances covered, tackles made.

A03 Indicative Content: Analysis of factors which negatively affect group productivity and the strategies to address faulty processes

- Analysis of factors:
 - Co-ordination losses could have resulted in set plays breaking down, players being out of position, meaning a loss of productivity and poor team performance.
 - Motivational losses could have meant that players were not trying as hard as others, leading to resentment and a breakdown in cohesion.
 - Large group size could have meant that players felt lost or undervalued resulting in them having low confidence or not trying as hard, meaning cohesion and productivity was reduced.
- Analysis of Strategies:
 - Social activities to develop cohesion could have resulted in an increase in social cohesion, meaning the players support and trust one and other and want to play for each other.
 - Praise players for effort regardless of whether they receive the ball/directly affect the play, consistently doing so may make all players contributions valued, maintaining motivation.
 - Employ GPS tracking during training/matches, capturing the distances covered, tackles made, may reduce the Ringelmann effect, players will know their efforts are monitored at all times increasing motivation/reducing social loafing as they cannot hide.
 - Performance goals in the form of individual challenges which are reviewed after each match can reduce social loafing as each performer has a target to reach which will motivate them.

Accept other appropriate analysis of strategies which could be used to improve group productivity and the strategies which can be used to address specific faulty processes.

Student responses

Response A

actual performance = possible performance –
faulty process.

group
faulty process is what didn't go
right in the game. This is
due to decrease in communication
and decrease in motivation. The
decrease in communication can be down
to team mates not listening to the
coach before the game and tactics
which could have been a result of
defeat. Other communications which could
have caused the team defeat is team
mates not listening to one another.
Team mates not listening to one another
decreases their chances of success due
to lack of team work.

The decrease in motivation could
be having too much or too little
arousal during the game where they
may not have been to process all
information. Lack of motivation
leads to reduce of effort in the
game.

actual performance = is what is should
have been = perfection

This is a Level 1 response

Response A includes limited knowledge of Steiner's model. Some key terminology is used, but this lacks accuracy and detail. There are clear gaps which limits the mark that can be awarded. There is some AO2 evident, but this is lacking in any real breadth or depth. The answer often lacks substantiated reasoning, clarity, and structure.

2 marks

Response B

Actual production can be seen as potential production minus the losses made through faulty processes. Faulty processes can be seen as ~~one faulty process~~ effort/application problems, and others can be seen as co-ordination problems.

One application problem may have been due to the Ringelmann effect. This is where individual performance decreases as group size increases.

In a team of 11, an individual may think they can get away with exerting less effort as there are ten others to make up for it. To add to this, a coach should highlight and enforce specific duties and roles. For example this defender should go to the attacker whereas the other centre back should ^{stay} remain to cover if the attacker gets round.

Another faulty process is social loafing, a drop in motivation due to a lack of recognition of their performance.

The goalkeeper may feel demotivated if their 'clean-sheet' hasn't been acknowledged, which will be detrimental to performance. To combat this, a coach Extra space could note down and tell each player one good thing (positive feedback) that they have done each game to keep motivation high and limit losses in

production due to this faulty process. How well individuals interact with one another, or task, how well they come together to achieve a common goal. Both types directly effect one another as usually those who get on better can communicate better in the competition and achieve the goal. To improve cohesion, a coach could take the team to a social event like a meal out. This will improve social cohesion and therefore positively effect task cohesion.

Another faulty process may be that the England, being the better team, underestimated Iceland, and therefore saw decreased motivation and arousal. Low arousal would've caused ~~low~~ sub-optimal performance, and could've been ~~effect~~ the performance. Coach could've shown clips of previous Iceland victories and highlighted what they do well, proving to the team that it ~~wasn't~~ be an easy game.

This is a Level 3 response

Response B has comprehensive knowledge of Steiner's model, with relevant key terminology evident throughout the answer. Most of this knowledge is also applied to the specific scenario in the question demonstrating good breadth. Finally, there is some analysis of how the faulty process resulted in the loss. For this answer to move into the top band, a greater depth of analysis relating to how the strategies suggested could have addressed the faulty processes and prevent the defeat would have been required.

10 marks

Question 14 (2022)

An experienced women's rugby team is bottom of the league with only a few games left before the end of the season.

A new head coach is recruited and chooses to adopt an autocratic leadership style during training sessions and games.

Analyse the impact an autocratic leadership style may have on the team. Refer to Chelladurai's multi-dimensional model in your answer.

[15 marks]

Mark scheme

AO1 = 4, AO2 = 5, AO3 = 6

Students are expected to answer in continuous prose, use good English, organise information clearly and use specialist vocabulary where appropriate.

Level 5

13–15 marks

- Knowledge is consistently comprehensive, accurate and well detailed.
- Application of breadth or depth of knowledge is clearly evident.
- Analysis and/or evaluation is coherently and consistently made between different relevant factors and their impact.
- Relevant terminology is almost always used.
- The answer demonstrates a high level of substantiated reasoning, clarity, structure and focus.

Level 4

10–12 marks

- Knowledge is usually comprehensive, accurate and detailed.
- Application of breadth or depth of knowledge is often evident.
- Analysis and/or evaluation is often made between different relevant factors and their impact, and is usually coherent.
- Relevant terminology is usually used.
- The answer usually demonstrates substantiated reasoning, clarity, structure and focus.

Level 3

7–9 marks

- Knowledge is generally accurate and sometimes detailed.
- Application of breadth or depth of knowledge is sometimes evident.
- Some analysis and/or evaluation is made between different relevant factors and their impact, but may sometimes lack coherence.
- Relevant terminology is used but may sometimes be missing.
- The answer sometimes demonstrates substantiated reasoning, clarity, structure and focus.

Level 2

4–6 marks

- Knowledge is sometimes accurate but may lack detail.
- Application of breadth or depth of knowledge is occasionally evident.
- Some analysis and/or evaluation is attempted between different relevant factors and their impact, but is likely to lack coherence.
- Relevant terminology is occasionally used.
- The answer occasionally demonstrates substantiated reasoning, but may lack clarity, structure and/or focus at times.

Level 1

1–3 marks

- Knowledge is limited and may lack accuracy and detail.
- Application of breadth or depth of knowledge is likely to be limited or not evident.
- There may be very little or no analysis and/or evaluation made between different relevant factors and their impact.
- Relevant terminology used only very occasionally.
- The answer often lacks substantiated reasoning, clarity, structure and/or focus.

0

No relevant content.

Possible content may include:

AO1 Knowledge of Chelladurai's multi-dimensional model

- Autocratic leader makes all of the decisions.
- Requirements of the situation determine the required leadership behaviour.
- Characteristics of team member determine the preferred behaviour.
- The requirements of the situation, the characteristics of team members and the characteristics of the leader determine actual behaviour.
- Accept labelled diagrams of Chelladurai's multi-dimensional model.

AO2 Application of an autocratic leadership style and Chelladurai's multi-dimensional model to the women's rugby team

- Autocratic leadership style:
 - Coach will not consult over key decisions eg roles in the team such as captain/tactics which are employed, making all the decisions themselves.
- Situation:
 - Team is facing relegation, if there are few fixtures left, the time for the coach to turn things round could be very limited.
 - Rugby involves a large squad, often 20–30 players, and complex skills requiring co-ordination.
- Do not accept danger of the sport as a situational factor, as context states players are experienced.
- Group member's characteristics:
 - Players are experienced, which may mean they're older/more able and want to be involved in decision making.

- It is a female team, which may mean that they prefer to be involved/consulted when important decisions are made.
- Leader's characteristics:
 - Coach may have achieved success in the past employing an autocratic approach/may prefer telling players what to do in training or during matches.

A03 Analysis of the impact employing an autocratic leadership style may have on the team's performance and team member's satisfaction

- Experienced female team members may prefer a democratic approach, but requirements of the situation and leader's preferences lead to autocratic behaviour, performance, and satisfaction unlikely to improve.
- Team needs to win as many fixtures as possible in a short space of time to avoid relegation, autocratic leadership likely to improve performance/results quickly.
- Ensuring all members of a large squad understand their role in the team/tactics is complex, an autocratic style may be the most efficient way of achieving this quickly.
- The coach's preference to adopt an autocratic leadership style, may mean they are most effective leading in this way, leading to improved performances/results.
- Team member satisfaction is important, team members may leave/team may disband/cliques may form/productivity may be reduced.

Accept any other appropriate analysis of the impact an autocratic leadership style will have on performance and satisfaction of the team according to Chelladurai's multi-dimensional model.

Student responses

Response A

~~The~~ An autocratic leadership style is where the leader makes all the decisions without input of the members. ~~The~~
~~exactly~~ An autocratic leadership style is the most effective in this situation, this is because the situation is unfavourable as the team is at the bottom of the league. The situation

requires an autocratic leadership style, the rugby team is experienced this means that the style is clear. If the preferred behaviour of the member is democratic, but the situation requires an autocratic leadership style, the coach must value the situation over the members, this may cause poor ^{member} team satisfaction, this may mean that performance decreases.

~~It is required~~ If the members prefer an autocratic leadership, this would mean that the required, actual and preferred behaviour would all be autocratic, ~~the~~ which would mean that member ~~satisf~~ satisfaction would increase, which would mean that the team performance would increase, meaning that the team move up from the bottom of the league.

This is a Level 2 response

This response is able to describe an autocratic leader and consider their suitability for the scenario in the question. While this leans on Fiedler's model, the links to an autocratic leader make it creditworthy. The students's assumption that satisfaction and performance are linked is incorrect, but they are still able to make some analytical points regarding the impact of an autocratic coach on the team in question.

5 marks**Response B**

Chelladurai's model multi-dimensional model states that there are multiple characteristics e.g. - Situational, leader and member that influence the leadership style used; situational characteristics refer to the environment e.g. - level of skill needed, if it's dangerous therefore as the women's rugby team is bottom of the league they need strict directions from a coach in order to improve their performance, this means that the required leadership style needed is an autocratic style, this means that the coach provides the rugby team with information and tactics that should be executed; however this limits the amount of independent thinking done within the group, this means that learning is restricted and it may not benefit in improving performance because the women's rugby is unable to discuss tactics to use among themselves as the coach does it for them.

Leader characteristics refers to the personality and experience the individual has; a leader can either be prescribed or emerged & therefore as the new head

Coach has been recruited they have been selected by a higher up, this means they have lots of experience and possess characteristics like charisma and motivation that can help improve the women's rugby performance within the next few games because those characteristics can help improve ^{task} cohesion between the team and now coach therefore everyone is working towards the same goal; leader characteristics relate to the actual leadership style used, this means that as an autocratic leadership style is being used the new head coach is very experienced.

Member characteristics refers to the personality and experience of the performers, this relates to the preferred leadership style of a group. As the women's rugby team are experienced this means they have an idea on how to perform, now therefore ~~autocratic~~ they're able to discuss opinions about game play to the coach, this means that an autocratic leadership style isn't the preferred style for this group; a democratic leadership style would benefit the ~~group~~ team more because then members can be involved in the coach's decisions and provide their own opinion on the matter, this means that the women's ~~team~~ rugby team can engage in independent thinking and learn and adapt from their mistakes, this allows them to improve their performance and perform successfully before the end of the season.

This is a Level 4 response

This response demonstrates excellent knowledge of the model and autocratic leadership. While the assumption that an autocratic leader is experienced is inaccurate, we do not want to overly penalise students for inaccuracies. The student regularly considers the scenario outlined in the question during their response, applying their knowledge to it and considering the impact. This demonstrates good breadth.

11 marks

Sport and society and the role of technology in physical activity and sport

Short answer questions

Question 14 (2018)

Identify **three** characteristics of physical recreation.

[3 marks]

Mark scheme

AO1 = 3

Award **one** mark for each of the following points.

- (Rules) – Physical recreation has modified rules (1)
- (Officials) – Physical recreation is usually self-officiated (1)
- (Reason for taking part) – Physical recreation is often done for intrinsic rewards / enjoyment / fun / stress relief / non serious / health and fitness (1)
- (When they take part) – Voluntary / choice / leisure time / not time bound (1)

Accept first three answers only.

Accept other appropriate characteristics of physical recreation.

Student responses

Response A

1. Played during free-time
2. Played for fun / improving health or fitness
3. No physical prizes or financial gain

The mark scheme for this question is broken down into 4 clear areas students can draw answers from. Response A is awarded 2 marks for the first two points in line with bullet points 3 and 4 on the mark scheme. The student's third point is not credited as, at best, it is a repeat of bullet point 3. It is important that, for this question, only the student's first three answers are credited.

2 marks

Question 17.1 (2019)

State two forms of technology a coach could use in sports analytics.

[2 marks]

Mark scheme

AO1 = 2

Award **one** mark for each of the following points:

- GPS (1)
- Video / motion analysis (1)
- Heart rate monitor measures (1)
- Performance / match analysis programmes (1)

Accept first two answers only

Accept other forms of relevant technology a coach could use. Answers must relate to sports analytics.

Student responses**Response A**

- 1 Videeing And the analysing performance.
- 2 Dartfish.

Response A is awarded one mark for bullet point 2 on the mark scheme. Dartfish is the name of a type of video analysis software and not creditworthy on its own. In this case, it is also a repeat of the student's first point.

1 mark

Response B

- 1 Video analysis - dart fish
- 2 Wearable devices e.g smart watches to ~~test~~ measure heart rate

Response B is awarded two marks as they have produced two clearly different answers relating to bullet points 2 and 3 on the mark scheme.

2 marks

Question 17.2 (2020)

Give a sporting example of positive deviance.

[1 mark]

Mark scheme

AO2 = 1

- A performer competing despite being injured (1).
- A performer causing injury to another athlete without intention/breaking the rules/compromising the etiquette of the sport due to their desire to win (1).
- A performer who over-trains (1).

Accept other appropriate sporting examples of positive deviance.

Student responses

Response A

Foot injury caused during a 50/50
event at start of game.

Response A is deemed too vague and not awarded a mark, as it fails to specify that the 50/50 event was within the rules or the injury caused unintentionally.

0 marks

Response B

Carrying on playing with an injury.

Response B is awarded the mark in line with bullet point 1 on the mark scheme.

1 mark

Question 15 (2018)

Coaches legally have to demonstrate a duty of care by reducing potential risks and dangers for players.

Outline how coaches can demonstrate a duty of care.

[3 marks]

Mark scheme

AO1 = 3

Award one mark for each of the following points.

- Providing first aid provision so that injured players are dealt with. (1)
- Maintain the right supervision numbers to allow safe participation / balanced competition. (1)
- Collect medical information / contact details so that incidents can be dealt with. (1)
- Do a risk assessment so that any dangers are planned for / check equipment / clothing / facilities. (1)
- Adapt sessions to needs / ability of participants. (1)
- Suitably trained i.e. DBS, safeguarding, first aid with regards to abuse / educate on dangers of drugs / overtraining / appropriate training. (1)

Accept other appropriate descriptions of how coaches can demonstrate a good standard of duty of care.

Student responses

Response A

They can make players aware of drug risk...
and inform them of their impact. Ensure
first Aid certificates and DBS checks are all
up to date. make sure facilities and equipment are
up to standard and safe to use.

Response A awarded two marks. 'Make players aware of drug risk' is awarded as bullet point 6 on the mark scheme under the umbrella of the coach being suitably trained. This means that the second point the student makes, relating to the first aid certificates and DBS checks, is a repeat of this point. Their final point is awarded as bullet point 4 on the mark scheme.

2 marks

Question 18 (2020)

State two causes of performer violence. Give a sporting example for each.

[4 marks]

Mark scheme

AO1 = 2, AO2 = 2

- Retaliation/abuse/provocation from an opponent/spectators. (AO1) (1)
- A player being racially abused by an opponent/spectator/reacting to a bad tackle. (AO2) (1)
- Win ethic/win at all costs attitude. (AO1) (1)
- Intentionally provoking an aggressive response from an opponent in order to gain an advantage/deliberately injury a player to prevent a goal. (AO2) (1)
- Emotional intensity/importance of the event/over arousal (AO1) (1).
- Local derby match/cup final/excitement leading to a violent challenge. (AO2) (1)
- Poor officiating or frustration with match officials .(AO1) (1)
- A vital decision such as a goal/try/ball landing in or out being made/being perceived to have been made incorrectly. (AO2) (1)
- Nature of the sport. (AO1) (1)
- American football/Rugby are sports with lots of physical contact which could overspill into violence. (AO2) (1)
- Frustration with own performance. (AO1) (1)
- Unable to get near the ball/being marked out of the game/passing below usual standard. (AO2) (1)

Accept other appropriate causes and examples of performer violence.

Student responses

Response A

- 1 Aggressive nature of event for example contact sports such as rugby can lead to violence without proper control from referee.
- 2 Win at all cost (Lombardian ethic) desire and need to win is too great pent up anger released through violence as a cathartic release.

Response A correctly identifies two causes of performer violence in sport with credit given for 'nature of event' (bullet point 9 on the mark scheme) and 'win at all cost' (bullet point 3 on the mark scheme). However, it only gives a sporting example linked to the first point, with rugby highlighted as a potentially violent sport (bullet point 10 on the mark scheme). The example linked to 'win at all cost' is deemed too vague.

3 marks

Response B

1. Taunting from opposition. Sledging in cricket.
2. Incorrect refereeing decisions being made. Referee awarding a penalty for simulation.

Response B is awarded all 4 marks, as they provided two clearly different causes of performer violence (bullet points 1 and 7 on the mark scheme) and accompany these with specific and correct sporting examples.

4 marks

Question 19 (2022)

'The use of performance enhancing drugs should be allowed in sport.'

Evaluate this statement.

[3 marks]

Mark scheme

A03 = 3

Arguments for allowing PEDs (sub max 2)

- It levels the playing field if everyone took them/it would be fairer as all athletes would have the option to take them. (1)
- Drug testing is time consuming/expensive/ can be ineffective so this would be eliminated if everyone was allowed to take them. (1)
- If taking PEDs is permitted, health risks could be more closely monitored, making it safer. (1)
- It would make sport more exciting/entertaining to watch as performance standards would increase. (1)

Arguments against allowing PEDs (sub max 2)

- Not everyone could afford to take PEDs therefore the playing field wouldn't be level. (1)
- It would force athletes who may not want to take PEDs to take them in order to keep up with competitors. (1)
- It could lead to long term health implications as athletes would be taking them for longer periods of time / eg regular steroid would increase the risk of heart disease. (1)
- Spectators may be put off sport knowing that what they are watching is not natural ability/is chemically enhanced performance. (1)
- The use of drugs in sport is immoral/unethical which would damage its reputation/put people off participating (1)

Accept any other appropriate evaluation of the statement.

Student responses**Response A**

This would be good as it would make it fair for everyone as at the minute only the people that can afford the best drugs that can't be detected are able to.

However some performers wouldn't want to take performance enhancing drugs (PED) so they would be at a disadvantage. Some PEDs can be dangerous and cause health complications.

Points 1 and 7 on the mark scheme are credited with the response providing both sides of the argument as required by the command word 'evaluate'. The final point is deemed too vague to be awarded, as dangers of drug use must be linked to long term impact or specific examples.

2 marks

Sport and society and the role of technology in physical activity and sport

Extended response questions

Question 20 (2020)

Evaluate the impact of commercialisation on professional football since the Premier League was formed in 1992. Refer to Figure 2 in your response.

[8 marks]

Mark scheme

A01 = 2, A02 = 3, A03 = 3

Students are expected to answer in continuous prose, use good English, organise information clearly and use specialist vocabulary where appropriate.

Level 4

7–8 marks

- Knowledge is consistently accurate and well detailed.
- Application of breadth or depth of knowledge is clearly evident.
- Analysis and/or evaluation is coherently and consistently made between different relevant factors and their impact.
- Relevant terminology is consistently used.
- The answer almost always demonstrates substantiated reasoning, clarity, structure and focus.

Level 3

5–6 marks

- Knowledge is usually accurate and detailed.
- Application of breadth or depth of knowledge is often evident.
- Analysis and/or evaluation is often made between different relevant factors and their impact, and is usually coherent.
- Relevant terminology is often used.
- The answer usually demonstrates substantiated reasoning, clarity, structure and focus.

Level 2

3–4 marks

- Knowledge is sometimes accurate with some detail.
- Application of breadth or depth of knowledge is sometimes evident.
- Analysis and/or evaluation is sometimes made between different relevant factors and their impact, but may lack coherence.
- Relevant terminology is sometimes used.

- The answer occasionally demonstrates substantiated reasoning, but may lack clarity, structure and focus.

Level 1

1–2 marks

- Knowledge may be limited.
- Application of breadth or depth of knowledge may be limited or not evident.
- There may be little or no analysis and/or evaluation between different relevant factors and their impact.
- Relevant terminology is occasionally used.
- The answer may lack substantiated reasoning, clarity, structure and focus.

0 mark

No relevant content.

Possible content may include:

AO1 Indicative Content: knowledge of increased commercialisation in football.

- Commercialisation, treating sport as a commodity/using it as an asset to be sold.
- Involves sponsorship and media coverage.
- Characterised by professional sport, entertainment, contracts, athletes as commodities, focus is on results.

AO2 Indicative Content: application of knowledge of increased commercialisation in football.

- TV revenue paid to the Premier League has increased from £191 million for the period 1992–1997, up to £5 136 million/£5.1 billion between 2016–2019.
- Investment from BSkyB/BT to broadcast live matches across the globe.
- The Premier League is a global brand/shown all over the world/in over 130 countries.
- Sponsorship of kits/stadia/ball/programme, eg The Emirates Stadium – Arsenal FC

AO3 Indicative Content: evaluation of the impact of commercialisation on football.

- Positive impacts:
 - Increased revenue/investment allows higher wages attracting the best players in the world to play in the Premier League.
 - Increased income has led to increased standards of facilities, coaching, training and rehabilitation, all contributing to increasing the standard of football.
 - Officials can now train full-time/revenue has increased technology used to make refereeing decisions more accurate.

- Money raised through commercialisation is used to benefit the facilities/opportunities of grass-roots football.
- Negative impacts:
 - The income from commercialisation is not distributed evenly between clubs/teams, creating inequality.
 - Global appeal can lead to intense scrutiny of the sport leading to criticism over any indiscretion.
 - Control of decision making for the sport increasingly affected by a small group of very wealthy individuals/companies.
 - Timings/frequency of matches dictated by TV companies.
 - Increases likelihood of gamesmanship/win-at-all-costs attitude/Lombardian ethic reducing the appeal of the sport.

Accept other appropriate evaluation of commercialisation on professional football since the Premier League was formed in 1992.

Student responses

Response A

Commercialisation is treating sport as a market commodity with intentions to make money.

Commercialisation brings about increase in popularity of sport. Advertisers bring their product to advertise during sporting events which brings about increase in revenue of the broadcast organisation.

Organisations own shares of the regular income during sport events which bring about increase in revenue.

Commercialisation have brought about increase in quality of facilities of sport. Commercialisation has also increase the standards of sporting events by making it more competitive and winning is a

Extra space must.

However, commercialisation puts a lot of pressure on the players
 Commercialisation controls sport so;g
 kick off time, ~~amount~~ ^{amount} of time cuts for advertisement -
 Commercialisation makes the game less enjoyable because of breaks / advert sessions for .

This is a Level 1 response

Response A demonstrates a very limited knowledge of the impact of commercialisation on football. There is some key terminology evident, but this is often used inaccurately. Very little of the student's knowledge is applied to football and there is no reference to figure, as required by the question. While there is AO3 evident this lacks any breadth or depth, failing to move the response beyond level 1. The answer lacks substantiated reasoning, clarity and structure.

2 marks

Response B

Commercialisation is where businesses use sport to advertise their brand/products and in doing so are willing to spend lots of money. This has had a significant impact on football making it arguably the biggest sport in the world. Media have an impact on sport as well as they use sport to attract more viewers, readers and listeners. They also pay a high price to show sport. Because of this football has had lots of money pumped into it. This has dramatically improved players salaries earning top players tens of millions pounds a year. This has increased the standard of sport by offering higher incentives for footballers to train harder and become better as well as providing clubs with more money to buy better equipment, build better facilities and higher more

Extra space Staff such as Physios, Psychologists, Nutritionist all who help improve player performance. It also increases participation and it does this through investing money into grass roots such as academies. However all this has had a negative impact as well such as tighter schedules for teams for media as well as more pressure for players, managers and clubs. This can be due to big business demanding more as they have bigger financial stakes in certain clubs and want to be seen as having the best team. Figure 2 shows that in the 27

years between 1992 – 2019 the a tv revenue right of the premier league have increased from 191million to 5136 million^{pounds}, this is ~~an~~ over a 25 time increase. And just from 30 2013 to 2019 the revenue rights have increased by 2118 million pounds. This highlights how much the premier league is worth to companies such as Sky Sports, BT Sport and Amazon prime. The Golden Triangle between Sport, Sponsorship and media show that these 3 factors are reliant on each other and without one the premier league would not be worth what it is today

This is a Level 3 response

Response B shows knowledge of commercialisation that is accurate and detailed. Key terminology is often used and is generally accurate. They apply their knowledge to the sport of football often demonstrating a breadth and depth of understanding. In line with the question, they have referred to the figure. As an evaluative question, the response correctly provides both the positive and negative impact that increased revenue/commercialisation has had on the sport.

6 marks

Question 20 (2022)

One football coach believes in the importance of winning fairly so encourages their players to demonstrate sportsmanship.

Another coach believes the win ethic is more important so encourages their players to use gamesmanship.

Evaluate these views in relation to professional football.

[8 marks]

Mark scheme

A01 = 2, A02 = 3, A03 = 3

Students are expected to answer in continuous prose, use good English, organise information clearly and use specialist vocabulary where appropriate.

Level 4

7–8 marks

- Knowledge is consistently accurate and well detailed.
- Application of breadth or depth of knowledge is clearly evident.
- Analysis and/or evaluation is coherently and consistently made between different relevant factors and their impact.
- Relevant terminology is consistently used.
- The answer almost always demonstrates substantiated reasoning, clarity, structure and focus.

Level 3

5–6 marks

- Knowledge is usually accurate and detailed.
- Application of breadth or depth of knowledge is often evident.
- Analysis and/or evaluation is often made between different relevant factors and their impact, and is usually coherent.
- Relevant terminology is often used.
- The answer usually demonstrates substantiated reasoning, clarity, structure and focus.

Level 2

3–4 marks

- Knowledge is sometimes accurate with some detail.
- Application of breadth or depth of knowledge is sometimes evident.
- Analysis and/or evaluation is sometimes made between different relevant factors and their impact, but may lack coherence.
- Relevant terminology is sometimes used.

- The answer occasionally demonstrates substantiated reasoning, but may lack clarity, structure and focus.

Level 1

1–2 marks

- Knowledge may be limited.
- Application of breadth or depth of knowledge may be limited or not evident.
- There may be little or no analysis and/or evaluation between different relevant factors and their impact.
- Relevant terminology is occasionally used.
- The answer may lack substantiated reasoning, clarity, structure and focus.

0

No relevant content.

Possible content may include:

AO1 Knowledge of sportsmanship and the win ethic/gamesmanship

- Sportsmanship involves:
 - abiding by the written and unwritten rules of sport/etiquette
 - maintaining self-control
 - fair play/respect for opponents and officials.
- Win ethic is concerned with winning at all costs which may include increased deviance and gamesmanship.
- Gamesmanship involves bending the rules but not breaking them to gain an advantage.

AO2 Application of sportsmanship and win ethic/gamesmanship to football

- Sportsmanship in football involves:
 - shaking hands at the end of the match
 - kicking the ball out of play so an injured player can receive treatment
 - returning the ball to the opposition team when it has been kicked out of play due to injury
 - helping a player to their feet who has been injured
 - accepting the referee's decision.
- Win ethic/gamesmanship in football involves:
 - deliberate deception of an official such as claiming a throw in knowing it isn't theirs/overreacting to a challenge/trying to get other players sent off
 - diving to win a penalty
 - time wasting.

A03 Evaluation of the views in relation to professional football

- Sportsmanship more important
 - Sportsmanship in football is still encouraged/highlighted in the media/players receive praise for sportsmanlike conduct.
 - There are consequences for players if they fail to show sportsmanship, for example being booked for time wasting/consistent fouling resulting in a yellow card.
 - FIFA Fair Play Award is awarded annually for acts of sportsmanship in the game suggesting that it is still valued as a sporting ethic by the sport's governing body.
 - Professional football players encouraged to be role models/Respect campaign in football suggests sportsmanship is still important.
- Win ethic/gamesmanship more important
 - Win ethic is a large part of professional football due to increased financial rewards associated with success in football.
 - Increased professionalism in football has led to a great win ethic leading to more acts of gamesmanship/deviancy taking place/difficult to maintain a sportsmanlike approach when pressure is so high.
 - Overall, win ethic is the most frequently occurring sporting ethic in professional football, sportsmanship becoming much less common.

Accept any other evaluation of these views in relation to professional football.

Student responses

Response A

Sportsmanship is abiding to the unwritten rules of the game and showing a high moral code and etiquette. Whereas gamesmanship is the deliberate bending of the rules to gain an unfair advantage.

Win ethic highlights the aim of individuals to play to 'win at all costs' and do everything in

power to win. For example, in football there are penalty shoot outs which ensure there is a winner, who will become sensationalised in the media, and a loser which will experience bad press and negative image. The coach who encourages gamemanship may promote dangerous tackles and deliberate verbal abuse tactics to push out opponents and injure and denure the referee. This will mean they may win the match and score to win the match. The rewards of

Extra space winning outweigh the disadvantages of being caught cheating or not following rules completely. The loss of contracts and living of managers in professional football when a team loses outlines how precarious the jobs are in these roles, showing a gamemanship good for ~~their~~ career. However, gamemanship will damage the nature of football and ~~not~~ give professional football a bad reputation. This could lead to loss of sponsorship and funding. This means that sportsmanship may be the ~~more~~ better option. It

maintains and protects the
~~the~~ traditional sport ~~and~~ as
 well as keeping players safe from
 injury. However, the high pressure
 to win from fans and maintain
 their ~~own~~ contracts may be a
 driving factor in not following
 rules. ~~Deviant~~ win ethic is
 evident in individuals time
 wasting, such as rolling around on
 the pitch and kicking the ball
 away when a freekick needs to
 be taken. This may on one hand
 make it more exciting/entertaining
 for spectators, due to large
 media coverage of professional
 football, but also cause
 disrupted viewing and reduce
 the fan base, therefore decreasing
 TV subscriptions and investment,
 meaning professional sport
 leagues cannot continue.

This is a Level 3 response

This response shows good AO1 knowledge of the key terms required by the question. They do an excellent job of applying this knowledge/giving examples (AO2) and evaluating the view that win ethic is more important in modern football (AO3). While they do support the argument that sportsmanship may be more important (protects traditional values of sport), this is limited in depth and breadth with no examples. This prevents the response from being in the top band. Top band answers will typically be well balanced/demonstrate breadth and depth for both sides of the argument.

6 marks**Response B**

Sportsmanship is adherence to the ~~written~~ ^{unwritten} rules of sport and to a moral high level and etiquette. Gamesmanship is stretching the rules to the absolute limit to gain an advantage, but not breaking them.

The view that sportsmanship should be upheld stems from amateurism, it is an important aspect of football as demonstrated by the FA fair play awards. However, gamesmanship is also prevalent in professional football as the win ethic is a large part of football games as many games are no-draw games like the Carabao Cup. Furthermore, gamesmanship can be seen in the wasting of time by footballers in order to give themselves an advantage.

Sportsmanship is important in professional football as many young people see footballers like Ronaldo as role models and aspire to be like them. Therefore they should demonstrate sportsmanship.

behaviour to encourage this in younger footballers an example of this is kicking the ball out of play after an injury. However, due to the high stakes nature of Modern day Professional football and the money involved the win ethic is seen as increasingly important by some players, examples of this include extreme exaggeration after a foul or calling for a decision that wasn't theirs in an attempt to deceive the referee or to get a opposition player sent off.

This is a Level 4 response

This response demonstrates comprehensive knowledge of the key terms with appropriate sporting examples from football. Its AO3 is balanced demonstrating both breadth and depth across both sportsmanship and win ethic/gamesmanship.

8 marks

Question 19 (2019)

Russia did not compete in the 2018 Winter Olympics due to allegations of drug taking.

Analyse the social, physiological and psychological reasons for an athlete to take drugs and the short term and long term implications this could have.

[15 marks]

Mark scheme

AO1 = 4, AO2 = 5, AO3 = 6

Students are expected to answer in continuous prose, use good English, organise information clearly and use specialist vocabulary where appropriate.

Level 5

13-15 marks

- Knowledge is consistently comprehensive, accurate and well detailed.
- Application of breadth or depth of knowledge is clearly evident.
- Analysis and/or evaluation is coherently and consistently made between different relevant factors and their impact.
- Relevant terminology is almost always used.
- The answer demonstrates a high level of substantiated reasoning, clarity, structure and focus.

Level 4

10-12 marks

- Knowledge is usually comprehensive, accurate and detailed.
- Application of breadth or depth of knowledge is often evident.
- Analysis and/or evaluation is often made between different relevant factors and their impact, and is usually coherent.
- Relevant terminology is usually used.
- The answer usually demonstrates substantiated reasoning, clarity, structure and focus.

Level 3

7-9 marks

- Knowledge is generally accurate and sometimes detailed.
- Application of breadth or depth of knowledge is sometimes evident.
- Some analysis and/or evaluation is made between different relevant factors and their impact but may sometimes lack coherence.
- Relevant terminology is used but may sometimes be missing.
- The answer sometimes demonstrates substantiated reasoning, clarity, structure and focus.

Level 2

4-6 marks

- Knowledge is sometimes accurate but may lack detail.
- Application of breadth or depth of knowledge is occasionally evident.
- Some analysis and/or evaluation is attempted between different relevant factors and their impact, but is likely to lack coherence.
- Relevant terminology is occasionally used.
- The answer occasionally demonstrates substantiated reasoning, but may lack clarity, structure and/or focus at times.

Level 1

1-3 marks

- Knowledge is limited and may lack accuracy and detail.
- Application of breadth or depth of knowledge is likely to be limited or not evident.
- There may be very little or no analysis and/or evaluation made between different relevant factors and their impact.
- Relevant terminology used only very occasionally.
- The answer often lacks substantiated reasoning, clarity, structure and/or focus.

0 mark

No relevant content.

Possible content may include:

- **AO1** Knowledge of social, physiological and psychological reasons athletes may take drugs
 - The social reasons for drug taking includes the modern day ethos of society of win at all costs
 - Fame and fortune
 - Pressure to win
 - Lack of effective methods to ban drug taking and some athletes have the belief that they will get away with it
 - State sponsored drugs programmes
 - The psychological reasons can vary for different drugs, for example, some athletes may take beta-blockers to steady nerves
 - Others may use anabolic steroids to increase their aggression
 - When athletes are suffering from a lack of confidence, stimulants can be used to raise a performer's belief that they can achieve
 - The physiological reasons can also vary depending on the drug use. Anabolic steroids help in storing protein and promote muscle hypertrophy, which increases strength and power
 - Beta-blockers are good as they help to improve accuracy through reducing heart rate

- Erythropoietin (EPO) increases red blood cell production, which increases an athlete's aerobic capacity. This means the athlete can work for longer and recover quicker from training
- Negative implications of taking drugs in a list like fashion can be credited under AO1.
- **AO2** Application of social, physiological and psychological reasons athletes may take drugs to specific sports.
 - Potential Olympic medalists may choose to take drugs because winning gold guarantees them a high media profile, sponsorship deals and other extrinsic rewards
 - Russian athletes subject to state sponsored doping, required to do as instructed by coaches/NGBs
 - Athletes such as golfers and snooker players may choose to take betablockers to calm their nerves and keep their arousal levels low so that they are able to carry out shots with a high degree of accuracy
 - Athletes such as boxers may choose to use steroids to increase their aggression so that when they go into a fight they act more violently towards their opponent
 - Anabolic steroids help in storing protein and promote muscle hypertrophy, which increases strength and power, useful for weightlifters to allow them to lift heavier weights in competition
 - EPO may be used by long distance cyclists as the increased aerobic capacity allows the cyclist to last longer during events and enables them to buffer lactic acid and save energy for sprint finishes.
- **AO3** Analysis of short and long term implications of drug taking
 - It can damage an athlete's reputation/negative publicity if caught, meaning that future sponsorship deals are less likely
 - Long term this could mean that an athlete will struggle financially and therefore unable to remain professional in their sport
 - Drugs such as anabolic steroids can lead to mood swings and paranoia, which can make training very difficult, coach-athlete's relationship may be affected by mood swings/could lead to long term depression
 - Increased aggression as a result of anabolic steroids can be detrimental to a boxer as they may end up becoming over aggressive leading to them breaking rules, such as head-butting an opponent, could lead to long term bans from sport
 - EPO can result in blood clotting and strokes, which means that athletes are putting their lives at risk
 - Anabolic steroids can result in kidney failure, making continued training impossible, possible death

- Analysis linked to Russian athletes, such as all athletes labelled as drugs cheats and stricter testing of Russian athletes at future events.

The specification only requires students to know about erythropoietin (EPO), anabolic steroids and beta blockers but knowledge of other performance enhancing drugs should be credited if correct and relevant.

Accept any other appropriate analysis of short and long term implications of drug taking.

Student responses

Response A

An athlete may take drugs for a number of reasons. Physiological reasons may include increased muscle mass due to the taking of anabolic steroids which will allow improved muscular strength. Other reasons may include increased endurance capacity from the taking of EPO due to increased haemoglobin capacity. Beta blockers will also help to reduce nerves and anxiety which will help to steady a performer. Social reasons for drug taking may include the need to fit in, some Russian athletes may have felt impelled to take drugs so that they felt one with their team. With this pressure from coaches may force an athlete to drug taking. Psychological reasons may involve the need to win via the Lombardian ethic and so drug taking will allow increased performance levels. Pressure from sponsors to succeed may also cause athletes to take drugs. Athletes will also have pressure due to being role models and so they feel like they have to succeed in order to impress others. A lack of deterrents due to many not getting caught may also lead to high levels of drug taking. A performer may desire the fame and fortune associated with success and so may choose to achieve this.

Taking drugs can have both short-term and long-term effects on an individual. In terms of health drugs such as anabolic steroids can cause severe acne and muscular cramps whereas in the long-term usage can cause blood clotting in the ~~ear~~ case of EPO which can lead to death. The taking of drugs can cause mental health problems as well which can affect general living.

If an athlete is caught taking drugs they may face fines and be banned for a certain amount of time. Medals may also be stripped and titles. However in the long-run they may face a tarnished reputation which may limit their ability to become a role model again. They may find it hard to attract sponsorship which could prevent their comeback in sport. With this it may also cause them to have disbelief in their future ability of whether or not they are taking drugs. Which may lower self-esteem.

This is a Level 3 response

Response A contains a good breadth of knowledge regarding the social, physiological, and psychological reasons for athletes to take drugs. Key terminology is evident throughout. The answer also analyses the short and long term implications of drug taking, although this lacks depth. The answer is lacking in application to relevant sports, however. Where reasons are stated for drug use these can be applied quite specifically to named sports, eg steroid use in 100m sprinting, demonstrating a greater depth of understanding.

7 marks

Response B

One social reason an athlete may take drugs is they are pressured to by coaches or sponsors. As winning is such large motivator with huge financial rewards and positive media coming from it coaches and sponsors may pressure a performer to take drugs to make sure they win. The coaches and sponsors will then benefit from the successful athlete if they are undetected.

Another social reason is that an athlete may feel they can't win without taking them because everyone else is taking them which pressures them to. For example young cyclists, see role models such as Lance Armstrong

only being successful because of using drugs therefore feel they need to in order to be successful.

Another ~~reason~~ social reason is that an athlete may think that ~~detectors~~ the drug will go undetected as the detectors aren't good enough or the athlete believes the risk of taking drugs and getting caught is low and therefore it is a good way to be successful.

A physiological reason could be that taking the drugs improves performance and enhances their abilities. For example a weight lifter could use anabolic steroids to increase maximum power, a sprinter could use stimulants to increase their reaction time and a long distance runner could use sodium bicarbonate to

decrease their buffering capacity of their blood and improve endurance. Another physiological reason would be the performer may have an injury and therefore to participate with the injury has to take drugs.

A psychological reason would be to help a performer control their anxiety and nerves before their event. For example beta blockers which are depressants will help an athlete improve the accuracy as it allows them to stay relaxed and control their anxiety.

However all of these reasons will differ for each individual athlete and the event they participate in.

The short term implications of drug taking is that it can damage an athlete's health while enhancing their performance. It could also cause social isolation from peers as well if they don't take drugs.

If the athlete was caught taking drugs in the long term their reputation would be damaged and their medals would be stripped. They would lose income and sponsorship from it and receive long term bans from it. For the sport it would cloud the success of clean athletes with the media focusing on the negative implications, such as the drug taking. It also creates an association to

the sport, in cycling it is known to be a sport where the majority of athletes take drugs, this then leads to younger athletes trying and taking drugs because their role models are. However if an athlete was not caught then drug taking could increase their ~~prize~~ profits, increase their salary and prize money and increase their performance.

This is a Level 4 response

Response B shows comprehensive knowledge of the reasons why an athlete may take drugs. There is a breadth and depth to the application, with several sports specific links made. In addition, the analysis of the short and long term implication is more coherent with frequent links between different aspects of the question made. The student recognises that, while the long term effects will likely be negative, there is a chance they could get away with it and reap the rewards of their improved performance.

12 marks

Question 21 (2022)

Media coverage of professional tennis has increased over the past 20 years. Tennis players are increasingly required to interact with the media in the lead-up to matches.

Evaluate the impact the media may have on a professional tennis player's self-efficacy in an upcoming match.

Refer to Bandura's Model of self-efficacy in your answer.

[15 marks]

Mark scheme

AO1 = 4, AO2 = 5, AO3 = 6

Students are expected to answer in continuous prose, use good English, organise information clearly and use specialist vocabulary where appropriate.

Level 5

13–15 marks

- Knowledge is consistently comprehensive, accurate and well detailed.
- Application of breadth or depth of knowledge is clearly evident.
- Analysis and/or evaluation is coherently and consistently made between different relevant factors and their impact.
- Relevant terminology is almost always used.
- The answer demonstrates a high level of substantiated reasoning, clarity, structure and focus.

Level 4

10–12 marks

- Knowledge is usually comprehensive, accurate and detailed.
- Application of breadth or depth of knowledge is often evident.
- Analysis and/or evaluation is often made between different relevant factors and their impact, and is usually coherent.
- Relevant terminology is usually used.
- The answer usually demonstrates substantiated reasoning, clarity, structure and focus.

Level 3

7–9 marks

- Knowledge is generally accurate and sometimes detailed.
- Application of breadth or depth of knowledge is sometimes evident.
- Some analysis and/or evaluation is made between different relevant factors and their impact, but may sometimes lack coherence.
- Relevant terminology is used but may sometimes be missing.

- The answer sometimes demonstrates substantiated reasoning, clarity, structure and focus.

Level 2

4–6 marks

- Knowledge is sometimes accurate but may lack detail.
- Application of breadth or depth of knowledge is occasionally evident.
- Some analysis and/or evaluation is attempted between different relevant factors and their impact, but is likely to lack coherence.
- Relevant terminology is occasionally used.
- The answer occasionally demonstrates substantiated reasoning, but may lack clarity, structure and/or focus at times.

Level 1

1–3 marks

- Knowledge is limited and may lack accuracy and detail.
- Application of breadth or depth of knowledge is likely to be limited or not evident.
- There may be very little or no analysis and/or evaluation made between different relevant factors and their impact.
- Relevant terminology used only very occasionally.
- The answer often lacks substantiated reasoning, clarity, structure and/or focus.

0

No relevant content.

Possible content may include:

AO1 Knowledge of media and self-efficacy

- Media: radio, TV, satellite, internet and social media
- Self-efficacy: a belief in your ability to master a specific sporting situation
- Bandura's Model of Self-efficacy
 - Performance accomplishments: what you have achieved already.
 - Vicarious experiences: seeing others do the task.
 - Verbal persuasion: encouragement from others.
 - Emotional arousal: a perception of the effects of anxiety on performance.

AO2 Application of media and self-efficacy to the tennis player

- Application of media to tennis
 - Tennis is regularly shown on TV.
 - Major tournaments generate high viewing figures.
 - Many players are high-profile celebrities with large social media followings.

- Highlights/reports etc can be seen across the internet.
- Application of self-efficacy to tennis
 - Performance accomplishments: a tennis player may have previously beaten their upcoming opponent.
 - Vicarious experiences: a tennis player may see a similarly ranked player beating their next opponent.
 - Verbal persuasion: the tennis player's coach may give them encouragement before their upcoming match.
 - Emotional arousal: the tennis player may use stress management techniques to achieve optimal arousal.

A03 Evaluation of the impact the media may have on a professional tennis player's self-efficacy in an upcoming match

- Positive impact:
 - Performance accomplishments: media commentators may highlight that the player has never lost to their opponent in their previous ten meetings which will increase their self-efficacy.
 - Vicarious experiences: the player will be able to watch other players of similar rank on TV/internet beating their next opponent which will increase self-efficacy.
 - Verbal persuasion: commentators may predict that the player will win their next match increasing their self-efficacy.
 - Emotional arousal: as the player is a professional, they will be in the autonomous stage of learning and as such an increase in emotional arousal, due to a large TV audience/media presence, will result in social facilitation and increased self-efficacy.
- Negative impact:
 - Performance accomplishments: media commentators may highlight that the player has never beaten their opponent in their previous ten meetings which will decrease their self-efficacy.
 - Vicarious experiences: the player will be able to watch other players of similar rank on TV/internet losing to their next opponent which will decrease self-efficacy.
 - Verbal persuasion: commentators may predict that the player will lose their next match decreasing their self-efficacy.

Student responses

Response A

Bandura's model of self-efficacy outlines the effect of previous successes, vicarious experiences, ~~per~~ ~~persuasive communication~~ persuasive communication and emotional arousal.

For example, in a high profile interview before a game, the interviewer may remind the tennis player of a previous match where they did not play to a high standard. This will ~~not~~ develop negative thoughts within the player and reduce their confidence within their game as they are imagining another loss. They may become demotivated as the large media coverage highlights to public his weakness. This means in the game ~~he~~ they may feel evaluation apprehension, causing increased arousal and will make further mistakes, losing the rally. However, if the interviewer hypes them up and reminds them how good they are by saying - 'you are top ten in the

world', this will improve the self-esteem of player and cover HR as they feel really and motivated to perform. They are reminded of their successes and this will increase specific as well as general (in all situations) self-efficacy, meaning they enter the next match with positive thoughts and low stress levels. Due to being a professional they will have high amounts of previous successful outcomes.

example drop shot.

Vicarious experience is seeing someone else of our ability complete skill, showing
 Extra space it is possible. The interviewer may be a clip of competitor playing a shot they struggle to do correctly, using player of very similar ranking. This on one hand could increase ~~and~~ motivation ~~and~~ as they think it is achievable, ~~to~~ meaning their show approach behaviour in their match and take the risk of a drop shot which could be the make or break

point between winning and losing the game. On the other ^{and autonomous} hand, due to being a professional, ~~the~~ watching their opponent easily perform ~~that~~ they could feel threatened as ~~they~~ their position in the competition might be taken away. The pressure from fans and young children watching is immense, as they ~~due~~ have to be a good role model and perform to inspire participation, but the media pressure and oversensationalism when losing may take over.

Emotional arousal is how well a player deals with arousal and could be cognitive or somatic effects.

The audience ~~as~~ (coaches) may increase the HR and distract the tennis player from their goals meaning they are hyperfocused on ~~the~~ media during game rather than tactics and strategies. For example Andy Murray has many pre-game interviews in which an audience and press is here to watch. However,

autonomous performers require high levels of arousal to reach peak flow so this high efficacy and pressure to win may make them perform their absolute best.

Persuasive communication is the input of others and positive words to reinforce actions. If interviewers congratulate for getting this far, they may increase efficacy and display high levels of confidence, intimidating opponent and they can win.

This is a Level 4 response

This response does an excellent job of AO1, AO2 and AO3 for 3 out of the 4 components of Bandura's model. Unfortunately, it fails to correctly identify the final component, verbal persuasion. While there is some application in this final paragraph, this knowledge error and the overall lack of depth in this final section prevent the answer from being in the top band.

11 marks

Response B

Tennis ~~match~~ tournaments now receive large viewerships due to the media ~~sports~~ For example, millions of people watch Wimbledon every year. As a result players are required to do pre-match interviews. Bandura proposed four factors that affect self-efficacy. One of these factors is ~~a~~ verbal persuasion. This refers to the idea that if the player is being told positive things ~~such as~~ their self-efficacy increase.

If the tennis player is being asked questions that suggest they are going to win their self-efficacy will increase however, it could cause their self-efficacy to decrease if they are being told that their opponent is really good or they are not playing well themselves at the moment.

Another factor Bandura proposed is Performance Accomplishments. This refers to the idea that if you have been successful in the past your self-efficacy is likely to increase. For example,

the tennis player may be playing ~~in~~ someone they have played before. If the interviewer reminds them that they have beaten them before self-efficacy levels will increase however, they could be reminded that they have not beaten them for a very long time which could cause them to doubt ~~them~~ themselves and self-efficacy will decrease.

In addition, one factor is vicarious experiences. This refers to the idea that self-efficacy will increase if we see someone else being successful especially if they are ~~as~~ a significant other. The media could remind the player that someone of a similar ability beat their next opponent which would increase their ~~abit~~ self-efficacy because they believe they could do the same however, they may have also witnessed someone lose to their next opponent which could decrease self-efficacy levels.

The final factor Bandura proposed was Emotional arousal. This states that if you become over-aroused self-efficacy levels decrease. Due to the media there are millions of people watching the tennis match. This could make the tennis player anxious and over-aroused causing their self-efficacy levels to decrease however, as a professional they should have stress management techniques to deal with this so the media should not affect self-efficacy levels too much.

This is a Level 5 response

This response reflects the standard required of a full-mark answer. For each of the 4 components of Bandura's model, they are able to consider its impact on self-efficacy in tennis and make links to the role the media plays in affecting this.

15 marks

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