



GCE A LEVEL EXAMINERS' REPORTS

PHYSICAL EDUCATION A LEVEL

AUTUMN 2020

Grade boundary information for this subject is available on the WJEC public website at:
<https://www.wjecservices.co.uk/MarkToUMS/default.aspx?l=en>

Online Results Analysis

WJEC provides information to examination centres via the WJEC secure website. This is restricted to centre staff only. Access is granted to centre staff by the Examinations Officer at the centre.

Annual Statistical Report

The annual Statistical Report (issued in the second half of the Autumn Term) gives overall outcomes of all examinations administered by WJEC.

Component	Page
Component 1	1
Component 2	4

PHYSICAL EDUCATION

GCE A LEVEL

Autumn 2020

COMPONENT 1

General Comments

A small number of candidates sat the autumn series paper this year. All candidates demonstrated good subject knowledge accessing AO1 marks consistently across the paper. Responses this year were better supported with examples allowing candidates to access marks in the AO2 assessment objectives. Where questions were banded candidates failed to reach the highest band answers, as their knowledge of the command word expectations was no evident in their responses.

Comments on individual questions/sections

- Q.1**
- (a)** All candidates were able to describe what happens to reaction time as the number of stimuli increases.
 - (b)** All candidates demonstrated good knowledge of the psychological refractory period; they were able to explain that it refers to the period of time during which a response to a second stimulus is significantly slowed because the first stimulus is still being processed. Candidates lost marks when the sporting example used did not replicate this statement.
 - (c)** All candidates were able to outline characteristics of the short-term memory.
 - (d)** Candidates that listed the characteristics here were only able to access 1 out of the 4 marks. The command word 'describe' meant candidates needed to describe in context the characteristics of a skilled performer.
 - (e)** Generally, the candidates were good at explaining the use of feedback and distributed practice allowing them to access 4/7 marks. Weaker candidates were not able to link their explanations to the cognitive stage of learning as stated in the question.
- Q.2**
- (a)**
 - (i)** Most candidates identified the graph represented the Catastrophe Theory. Where it was answered incorrectly, candidates referred to the Inverted U Theory.
 - (ii)** The majority of candidates were awarded 2-3 marks, they were able to make reference to the graph giving a good explanation of the effects of arousal. Marks were lost as they were not able to refer to the somatic and cognitive arousal linked with this theory.
 - (b)** All candidates were able to describe the difference between trait and state anxiety.

- (c) (i) All candidates were able to identify factors that may cause an increase in aggressive acts.
 - (ii) There was good knowledge of strategies that could be used to control aggression in sport.
 - (d) Candidates had a good knowledge of cohesion allowing them to access the AO1 marks. Explaining the relationship between task and social cohesion proved more difficult with few of the candidate's achieving marks in the AO2 band.
 - (e) There was good discussion of the advantages and disadvantages of using questionnaires in providing psychological information. Those candidates that were able to provide relevant examples within their response accessed the AO3 marks.
- Q.3**
- (a) Although a recall of knowledge multiple-choice questions, many candidates failed to identify Girls4gold as a talent identification initiative.
 - (b) Similarly, in this question candidates were only able to provide a basic explanation of the support available that allows performers to move from to performance to excellence.
 - (c) Candidates were able to explain that the media can be used to entertain, advertise and educate with relevant examples of each. Marks were lost when candidates failed to explain the role of the media in informing and interpreting with relevant examples.
 - (d) This was the first extended answer response required on the paper. All candidates demonstrated a good knowledge of deviance in sport. There were good explanations of a variety of reasons as to why deviance had increased in sport. Very few candidates were able to enter the band 3 responses due to the fact that both an increase and decrease in deviance were not referred to, therefore the expectation of the 'discuss' command word was not fulfilled.
- Q.4**
- (a) Candidates were able to identify the short-term responses that occur to the cardio-respiratory system well.
 - (b) Although candidates were able to identify long term adaptations to the musculo-skeletal system the command word 'explain' meant that they had to explain the benefit of the adaptation to performance in order to be awarded the AO2 marks.
 - (c) All candidates demonstrated good knowledge and understanding of how to monitor and develop their physical performance. In many of papers, these were also applied with some excellent examples provided throughout. The candidates who gained the highest marks on this question were able to organise their response to include the principles of training and use of periodization and training cycles.

- Q.5**
- (a)** Most candidates were able to identify the lever as being second class at the ankle.
 - (b)** There was also a good range of knowledge of the mechanical advantages of using a third order lever in sport.
 - (c)** Candidates confidently defined centre of mass, those awarded the highest marks were able to explain how a basketball player could increase their stability, referring to widening the stance, bending the knees and positioning the feet square.
 - (d)** A very well answered question where candidates were able to use the correctly scientific terminology to identify synovial joints, bones, muscles and contraction types at the elbow.
 - (e)** Candidates demonstrated an excellent knowledge of performance analysis techniques with physical and tactical being more in depth than technical followed by behavioural. There was good application of performance analysis to performance again mainly using the physical elements as examples. The majority of candidate responses fell within the level 2 banding however, some candidates displayed excellent discussion where ideas were expressed with clarity allowing them to access band 3.

Summary of key points

- Improve candidates' knowledge of the assessment objectives and their weighting on the paper
- Improve the use of technical language and use of examples to amplify candidates' knowledge and understanding
- Improve candidates' ability to write extended responses that meet the criteria of the command word used, especially on banded questions where AO3 marks are awarded.

PHYSICAL EDUCATION

GCE A LEVEL

Autumn 2020

COMPONENT 2

General Comments

This Autumn 2020 A550U20-1 Component 2 examination paper contained 4 questions broken down into a series of sub-questions ranging from 1-20 marks with numerous extended response questions posed throughout. Given the unprecedented and difficult circumstances candidates have been faced with this year in comparison to previous exam series, there were some very good scripts submitted where candidates demonstrated both excellent subject knowledge and application offered in response to the questions set, overall however performance varied greatly. Candidates showed the strongest subject knowledge in the Exercise Physiology and Biomechanical elements of the paper, and were weakest in the Sport in Society, and Psychological aspects. The paper offered a good variety of question styles and varied weighting across the assessment outcomes allowing for equality and fair access to the questions set. On the whole, evidence would suggest that candidates understood what was required of them throughout all 4 questions and there was almost no evidence of candidates misinterpreting questions. Thus, overall candidates interpreted the questions correctly but struggled to apply their knowledge to sporting examples which prevented them scoring highly in AO2 questions.

In response to the 20-mark question, which requires a different examination technique for the length of answer required, candidates continue to show evidence of knowledge and understanding and developing their knowledge to show varying examples in their arguments to the statement presented. The question asked for candidates to address the statement concerning whether life-long participation should take precedence over elite performance. Those achieving the top level managed to show balance across both sides of the argument showing a good spread of knowledge in the way they structured their answer. When lower mark totals were evident in candidate responses, the key reason was lack of fundamental knowledge. Additionally, candidates on lower marks were not attentive enough to the command word 'discuss' and simply presented evidence that was mainly one sided; either agreeing or disagreeing with the statement offered. Thus, candidates who performed less well generally produced responses with a lack of clarity, depth, or practical application. Overall, most candidates were able to fully complete their answers and very few ran out of time, thus demonstrating good time management and succinct responses.

The most successful questions were on energy systems (1a), (1b), types of transfer (1d), calculating average speed (2a), strategies to limit drag (2bii), diet (2c), physiological benefits of a warm-up (3b). The least successful questions were on Weiner's attribution theory (1e), social inequality (2e), leadership styles (3c) 19th century public schools (3d) and on mass participation vs excellence (4).

Comments on individual questions/sections

Q.1 (a) Outline how energy is provided during the jumping and throwing events of the heptathlon. (3)

Attempted: - 100%

Mean mark: - 2 (78%)

STDEV: - 0.6

Candidates were required to outline how energy is provided during the jumping and throwing events of the heptathlon so needed to centre their response around these sporting examples. Two marks were available for the identification of the correct energy system and an awareness of the intensity and duration of the events. Up to three marks were available for an outline of how the energy system provides the energy. Overall, all candidates showed a good awareness of the energy system being used and the intensity and duration of these events, but some candidates lacked clarity on exactly how the energy is provided under these conditions to meet the demands of the events.

(b) Explain why Jessica Ennis-Hill's performance in the 200 metres is predominantly anaerobic. (4)

Attempted: - 100%

Mean mark: - 3 (87%)

STDEV: - 0.9

Up to one mark was available for a basic explanation of why the 200m is predominantly anaerobic to include maximum intensity/effort and low duration. Up to two marks were available for those candidates who explained the involvement of both the ATP-PC system and glycolysis. Four marks were available to answers that gave reasoned justifications, linking the demands of the event to how energy is produced. The majority of candidates were too vague, showing only knowledge of the intensity and duration of the event, and giving no amplification or justification of the progressions through the energy systems and thresholds between energy production against activity duration. Most candidates therefore achieved credit for appropriate application to the intensity and duration of the sporting activity.

(c) Explain why athletes use an ice bath to reduce the delayed onset of muscle soreness, following an event. (3)

Attempted: - 100%

Mean mark: - 3.4 (72%)

STDEV: - 1.5

There were a great deal of inconsistencies within the answers to this question. The good answers showed sound knowledge of what an ice bath is and how it works to aid in the reduction of DOMS. Whilst weaker answers lacked detail, giving a vague overview of ice baths which did not specifically look at vasoconstriction and vasodilation and the impact of these physiological processes on reducing muscle soreness. Centres should ensure that candidates are clear on the physiological processes involved with the use of ice baths and their effects.

- (d) (i) Describe two different types of learning transfer other than positive transfer. (4)
Attempted: - 100%
Mean mark: - 3.4 (100%)
STDEV: - 1.5

Candidates offered good responses for the four marks available in relation to other types of transfer with the majority of candidates opting to describe negative, zero and bilateral transfer within their responses to this question. Good knowledge of transfer types was shown, with stronger answers applying these to specific sports examples. Centres should ensure that candidates are encouraged not to use the key terms of the transfer types in their answers i.e. 'negative transfer is transfer that has a **negative** impact on a new skill being learned' and should be encouraged to use alternate terminology such as 'hinder.'

- (d) (ii) Analyse, using examples, the strategies a coach could use to encourage positive transfer during a training session. (6)
Attempted: - 83%
Mean mark: - 3.1 (61%)
STDEV: - 2.2

This question was answered reasonably well and was split into two parts in terms of the mark scheme. Up to two marks were available for a knowledge of strategies to encourage positive transfer. Thus, an outline of key strategies such as ensuring the coach uses relevant practices that encourage transfer during training would have secured the marks here. The remaining two marks were allocated for an application of the chosen strategies to training sessions. Hence, weaker responses simply showed a knowledge of key strategies when compared to stronger responses that looked at how coaches could use these strategies in practice and ensure that skills would positively transfer into competitive situations for example.

- (e) Discuss how Weiner's attribution theory could be used by a coach to develop an athlete's sporting performance. (10)
Attempted: - 83%
Mean mark: - 3.7 (43%)
STDEV: - 3.7

This was a banded question and there were inconsistencies in the quality of answers presented by the candidates. Band three was achieved when candidates gave stronger responses that used the Weiner's model to, analyse how performance could be improved through the correct use of key attributions and using these to prevent learned helplessness and encourage self-serving bias in order to improve efficacy expectations, motivation and self-confidence. Weaker answers, therefore, only described the model and did provide good examples of how it could be applied and showed limited knowledge of how the theory could be used by the coach, and in some cases the theory was totally confused with either Bandura's Observational Theory, Self-Efficacy theory or Achievement motivation theory.

- Q.2 (a)** Calculate Jason Kenny's average speed during his 200m unpaced flying start race in Rio 2016. (2)
Attempted: - 100%
Mean mark: - 1.4 (83%)
STDEV: - 1.0

Most candidates got this question right by showing the correct formula, workings out and the correct answer with correct units displayed. Those that did not access any marks on this question confused the formula for speed with the formula for distance, and therefore came to the wrong conclusion in their answer.

- (b) (i)** Define impulse. (1)
Attempted: - 100%
Mean mark: - 0.6 (67%)
STDEV: - 0.5

Many candidates did not get the definition of impulse correct and confused it with the definition for 'speed.'

- (b) (ii)** Describe the strategies that could be used to limit the effects of drag in cycling. (3)
Attempted: - 100%
Mean mark: - 2 (78%)
STDEV: - 0.6

Most candidates made a good attempt at this question with the majority of candidates achieving AO1-2 from the 3 marks available. Weaker responses simply focused on giving a basic description of strategies such as helmets, clothing, and lower body position. Compared to stronger responses that tackled strategies outside of the common methods, mentioning the advances in bike design (wheels and frame), as well as looking at the technique of the rider and how these specifically impact upon limiting drag.

- (c)** Explain how a cyclist's diet can be modified before, during and after a competition to optimise performance. (6)
Attempted: - 100%
Mean mark: - 4 (78%)
STDEV: - 1.3

This was a banded question and there were inconsistencies in the quality of answers presented by the candidates. This type of question can be tricky when looking at strategies that can be used **during** competition in particular and, the majority of candidates struggled with this phase, showing good knowledge with regard to before and after competition but, weaker answers were not balanced across all 3 phases, before, during and after competition. Band three was achieved when candidates gave stronger responses that looked at explaining strategies across all 3 phases as, fuller answers looked at explaining hydration types and methods; referring to specific amounts and timings of fluid intake and food sources and the consumption of medium-high GI foods such as energy gels and isotonic sports drinks during competition.

- (d) Analyse, using examples, how SMART targets could be used by coaches to motivate performers. (8)

Attempted: - 100%

Mean mark: - 5.3 (58%)

STDEV: - 1.3

In this banded answer candidates showed good knowledge regarding the acronym SMART with the majority of candidates defining each aspect well and achieving 5 from the 8 marks available. As in 2019, fuller answers could have considered the application of SMART to sport when showing how these elements could be used to motivate performers i.e. timeframes were mentioned (short, mid-term and long term) but no specifics on what these would look like in practice and the impact of these on motivation levels.

- (e) 'Sport helps to address issues of social inequality.' Discuss, using sporting examples, the accuracy of this statement in today's society. (10)

Attempted: - 100%

Mean mark: - 5.8 (68%)

STDEV: - 2.3

On the whole this banded question was answered well and candidates had good knowledge of how the issues surrounding inequality such as socio-economic status impacts upon participation at all levels. Limited answers only looked at one side of the debate and mainly only superficially addressed areas such as race, ethnicity, gender and socio-economics. Responses also showed limited application of knowledge regarding opportunity, provision and esteem factors that may impact on equality across several social/special population groups, and racial discussions were mainly limited to factors such as the Rooney Rule and stacking no other areas were really explored. Fuller answers could have looked at both sides of the debate rather than merely disagreeing or agreeing with the statement presented. Counter arguments could have been explored with regards to upper and lower class involvement in sport, the dominance of private schools and the impact on medals won in major competitions, the links between social class, social mobility and levels of exercise and, exploring wider inequalities in relation to race, gender, and disability.

- Q.3** (a) Describe how coaches could use video analysis techniques to improve the technical performance of an individual player. (4)

Attempted: - 100%

Mean mark: - 2 (58%)

STDEV: - 0

On the whole candidates struggled with this question, most candidates gave a basic description of how video analysis can be used with performers, but specific video analysis techniques such as split screen, freeze frame etc were not explored and therefore, no reference made to how these could improve technical performance.

- (b) Explain the physiological benefits of a warm-up on a player's performance.
Attempted: - 100%
Mean mark: - 2 (78%)
STDEV: - 0.6

On the whole candidates struggled with this question, most gave basic explanations of the physiological benefits of a warm-up in general such as reducing risk of injury and increasing pliability of muscles but, did not explore the relationship between benefits and the impact of these on performance i.e. if there is an increase in muscle temperature this would lead to an increase in the pliability of the muscles, therefore allowing greater flexibility and would mean that the player could reach further to receive the ball, whilst minimising the risk of injury.

- Q.3 (c) Evaluate, using sporting examples, why a coach would use different leadership styles when coaching a team. (8)
Attempted: - 100%
Mean mark: - 4.4 (65%)
STDEV: - 2.4

Candidates generally understood the content of this question and the majority demonstrated good knowledge of the three main styles of leadership, autocratic, democratic and laissez-faire and the appropriateness of these to different situations. With the majority of candidates using examples such as rock climbing and the need for strong leadership when working with large groups or cognitive learners. However, stronger answers could have explored other leadership styles such as those highlighted in Fiedler's Contingency Model when looking to evaluate situation favourableness and could have applied their knowledge of Chelladurai's Model to the styles of leadership when assessing situational appropriateness.

- (d) Analyse, how 19th Century British public schools influenced the emergence of team games in modern sport. (10)
Attempted: - 100%
Mean mark: - 4.6 (53%)
STDEV: - 2.7

On the whole students struggled with the content of this question and exam technique was an issue for some. Many candidates showed good knowledge by referring in brief to how the factors such as games being organised by the boys, the influence of DR Arnold on character building and the development of moral integrity shaped the games into something more controlled, and how ex-public school boys helped to spread their games through their varying roles in society. However, the majority of candidates were not able to analyse how public schools influenced modern sport, with many simply making a brief reference to these points but not analysing their impact on the development of modern-day sport. Stronger candidates gave much more succinct and logical responses showing detailed knowledge across the three main stages of development and how the societal changes such as shifts from rural to urban, changes in workforce, the Saturday half-day, broken time payments, the Oxbridge melting pot and codification etc influenced change in sport, leading to the spread of games throughout the world thus, shaping modern day sport.

Q.4 Discuss the view that promoting lifelong participation in sport should take priority over developing elite performance. (20)

Attempted: - 100%

Mean mark: - 10 (58%)

STDEV: - 3.7

There were a range of responses for this question. Most candidates achieved marks in band 2 by showing good knowledge of the issues surrounding this debate and in particular on health and well-being but, this appeared to be the main focus in the majority of answers when looking at the strain placed on the NHS by not focusing on mass participation and encouraging lifelong participation; placing too much emphasis on the elite and, for some timing was clearly an issue. In weaker responses limited examples were used throughout especially when considering the arguments for lifelong participation in improving health and well-being as this seemed to be the main focus for both sides of the debate. Limited awareness was shown of the impact of these arguments. Any discussion of the debate clearly gave too much consideration to health and well-being and not on the wider arguments surrounding the debate. Judgements made were not been based on evidence just opinion with a lack of examples to justify points made. Stronger responses could have discussed issues surrounding opportunity, provision and esteem, disproportionate public spending and the justifications surrounding this i.e. results/successes/benefits/legacy, the 'no compromise approach' and the impact of these on the lower elements of the pyramid i.e. impact on pool of talent etc, shop window effect as well as considering political influence on votes, media exposure and its impacts, negative aspects surrounding the debate such as the increase in deviance and widening the gap between sports by placing too much influence on elite performance thus, providing a more reasoned debate.

Summary of key points

- Centres are encouraged to remind candidates to read the question carefully to ensure that they are aware of the demands of the question and apply their knowledge to examples.
- Centres should place more focus on developing the candidates understanding of the command words in relation to the assessment objectives, to ensure candidates are able to access all marks available in all parts of the question.
- Continue to reinforce the development of knowledge around technical vocabulary to ensure candidates are fully able to define key terms to ensure quality of responses and avoid giving vague or incorrect definitions.
- Centres should place more focus on exam style technique with reference to long answer responses to ensure candidates are approaching these in a logical well-balanced manner to enable them to access band 3 marks.

Continue to reinforce the three assessment objectives and their weighting within the paper.



WJEC
245 Western Avenue
Cardiff CF5 2YX
Tel No 029 2026 5000
Fax 029 2057 5994
E-mail: exams@wjec.co.uk
website: www.wjec.co.uk