



GCE A LEVEL EXAMINERS' REPORTS

PHYSICAL EDUCATION A LEVEL

SUMMER 2023

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.

Unit	Page
Component 1	1
Component 2	6
Component 3	12

PHYSICAL EDUCATION

GCE A LEVEL

Summer 2023

COMPONENT 1: EXPLORING CONCEPTS IN PHYSICAL EDUCATION

General Comments

The majority of candidates demonstrated good knowledge and understanding of many topics, with many offering correct application of this knowledge and accurate explanations. A high number of candidates were able to access the exam paper questions which showed an increase in candidates achieving marks generally across the paper.

Candidates achieving higher marks showed better knowledge of the command words, which allowed them to answer the questions in the correct context. As candidate marks descended there was evidence of knowledge but limited explanations, sporting examples and application of the knowledge to the question being asked.

Comments on individual questions/sections

- Q.1 (a)** Candidates achieving the mark in this question correctly identified that the reaction time is the start/initiation of a movement to a stimulus – not the time taken to respond to a stimulus (which is a definition of response time).

Mean mark 0.4.

- (b)** Candidates achieving full marks in this question correctly identified and explained two factors. Candidates either listing two factors correctly or explaining one factor correctly were awarded two marks.

Mean mark 1.9.

- (c)** Candidates achieving full marks in this question offered a detailed description of Newton's 3rd Law, including a directional force. Candidates describing the basic wording of the law correctly achieved one mark.

Mean mark 1.2.

- (d)** Candidates achieving full marks in this question offered an appropriate level of justification of why type IIb fibres are predominant in sprinting. Candidates achieving lower marks often lacked detail in the muscle fibre characteristics or failed to apply the characteristics to the sprinter.

Mean mark 2.5.

- (e)** Candidates achieving full marks in this question offered a list of four different reasons, showing a broader knowledge of the topic. Common errors were repeating the same point or similar points which limited the marks achieved.

Mean mark 2.6.

- (f) Candidates achieving full marks in this question explained benefits of video analysis after the performance and applied them to the athlete, making correct links to the analysis method, the timing of the analysis and potential positive outcomes for them as a performer. Candidates achieving lower marks often showed knowledge but failed to explain in enough depth covering the content of whole question.

Mean mark 1.9.

- Q.2 (a) (i) Candidates achieving the mark in this question correctly identified the correct axis of rotation.

Mean mark 0.7.

- (ii) Candidates achieving the full mark allocation in this question correctly explained how an athlete can use conservation of angular momentum to speed up or slow down their angular velocity. As the marks descended, candidates lacked terminology, or showed misunderstandings in elements of their answers, such as the relationship between moment of inertia and angular velocity.

Mean mark 2.7.

- (b) (i) Candidates achieving the full mark allocation in this question correctly described a method of training or exercises that would increase power, making reference to increasing strength and speed. Candidates were not awarded marks for answering a different command word, such as identifying, which was a common error.

Mean mark 1.2.

- (ii) Candidates achieving the full marks correctly outlined in detail a laboratory-based test for power. Candidates were not awarded marks for answering a different command word, such as identifying, or for outlining a field-based test for power. Both were common errors in this question.

Mean mark 0.7.

- (c) (i) Candidates generally answered this question very well, with the average being 3/4, meaning a vast majority could correctly identify causes of a plateau in performance.

Mean mark 1.5.

- (ii) In the second part of the question the average mark drops, with candidates showing a lack of explanation in the strategies, and often outlined, identified or described relevant strategies.

Mean mark 2.7.

- (d) This question allowed for a range of practices to be included in the answer, covering session-based structures as well as individual skills-based methods. Candidates achieving the full marks correctly discussed a range of practices that suited situations or skills and elaborated that although it was a good fit for that particular example, that it may not work for an alternative situation or skill. They supported the answer with examples. Further down the mark range, answers may have lacked discussion, examples or focused on one type of practice.

Mean mark 4.0.

- Q.3** (a) In this question candidates often failed to describe a barrier, and many applied an example to a disadvantaged group without first answering the question by describing what the barrier was.

Mean mark 1.1.

- (b) In this question knowledge of Coakley's deviance figure was good. Candidates often showed knowledge of under/over conformity or positive/negative deviance. Answers not achieving the full range of marks failed to explain why their examples may have happened, which although showed reference to the figure, never fully answered the question.

Mean mark 2.7.

- (c) In this question, knowledge of Bandura's theory of observational learning was good and plenty of in-depth descriptions/explanations of DARM was evident. Similarly, to question 3(b), there was little explanation/application of how knowledge of the theory can aid development.

Mean mark 2.5.

- (d) AO1 knowledge was excellent on this question with many candidates drawing upon historical events of sport being used as a political tool, as well as using current and recent events. Also, AO2 examples were shown, and a high percentage highlighted the use of sport as a political tool, whether that be positively or negatively. The answers achieving the full range of marks (AO3) discussed the idea and used examples of sport and politics being separate and that governing bodies/sports committees and sporting events often showing/stating/declaring that they are politically neutral.

Mean mark 5.4.

- Q.4** (a) Candidates knowledge of aggression and aggressive behaviour was good and many correctly identified factors that can cause aggression/aggressive behaviour in sport.

Mean mark 2.6.

- (b) Good knowledge of the frustration-aggression hypothesis was evident. Answers that showed knowledge of the theory failed to support fully it with sporting examples.

Mean mark- 2.7

- (c) The Marking Scheme for this question was open and allowed for a range of correct answers regarding the AO1 marks. Candidates also followed this up with examples and further explanation. Many concluded with a positive or negative on performance. Those achieving higher marks discussed the idea that some strategies may at times have a positive impact but can also be negative in different situations or lose their benefit over time.

Mean mark 6.4.

- Q.5** (a) Candidate's responses to this question was excellent.

Mean mark 0.9.

- (b) Candidates knowledge of the processes of blood distribution/redistribution was good. However, some candidates failed to directly describe the processes to skeletal muscle during exercise.

Mean mark 1.8.

- (c) Knowledge of VO2 max was good on this question, with candidates scoring well. Answers near the top of the range linked knowledge of VO2 max to benefits of a high VO2 max and then applied it to an endurance athlete.

Mean mark 2.3.

- (d) Candidates displayed good knowledge of three energy systems and correctly applied them to the 1500m race. The mean mark generally represents a lack of analysis of the systems in relation to the 1500m race, with answers lacking detail required at A-Level.

Mean mark 3.8.

- (e) Candidates displayed good knowledge and examples of technological advances and equipment developments. This was correctly applied to performers and officials, too. Many answers also covered aspects of discussion where impacts were both positive and achieving top band marks. Candidates not achieving top band marks would have only answered parts of the question (equipment or technological advances, performer or official, only positive or negative impacts – lacking discussion).

Mean mark 6.5

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 3 assessment objectives and their weighting within the paper to ensure candidates are not wasting time writing extensively on answers only requiring identification or description.

PHYSICAL EDUCATION

GCE A LEVEL

Summer 2023

COMPONENT 2: EVALUATING PHYSICAL EDUCATION

General Comments

The Summer 2023 A550U20-1 Component 2 examination paper was the second A- Level Physical Education paper of this specification and series. The paper contained 4 questions broken down into a series of sub-questions ranging from 1-20 marks with numerous extended response questions posed throughout. Overall, there were some very good answers submitted at AO3 where candidates demonstrated both excellent subject knowledge and application in response to the questions set. The paper offered a good variety of question styles and varied weighting across the assessment outcomes allowing for equality, fair access and, overall, the paper was more accessible due to the range of questions set. In general, evidence would suggest that candidates understood the specification content and what was required of them. The majority of candidate's demonstrated good knowledge and understanding, and they were able to recall information across the paper accessing AO1 marks consistently. However, there was evidence of some misinterpretation of questions, mainly 2(a), 2(b) and 2(e) and on occasions AO2 marks were awarded for a candidate's ability to support their answers with specific examples. However, this was not consistent throughout the paper. It is suggested that candidates understood the command words used in each question e.g., discuss and analyse, to ensure that they answer the question fully, particularly where an AO3 objective is being assessed and some candidates are still writing extensively in questions that only require identification and description.

In response to the 20-mark question, there was a mixed approach which requires a different examination technique for the length of answer required. Candidates continue to show evidence of planning and the majority of candidates are now understanding they do not need to write excessive amounts to score highly, in that a more concise yet detailed approach works best here. Those candidates scoring highly in question 4 are interpreting the question correctly, applying their knowledge and relating their points to strong examples. Overall, those achieving the top level managed to show balance across all areas and 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 and evidence. 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 compared to those scoring highly and, those candidates scoring higher on question 4 appeared to have attempted this question first.

Comments on individual questions/sections

- Q.1 (a)** Candidates were required to identify the type of joint and the movement patterns possible at the joint. 3 marks were available for the identification of the correct joint type as 'hinge' or 'condyloid' and the correct movement patterns as dorsi-flexion/flexion and plantar flexion/extension, eversion, and inversion. Overall, the majority of candidates showed a good awareness of the joint in use, but some candidates lacked clarity on exactly the type of joint, often identifying it as a ball and socket joint or not at all. Candidates did, however, show more knowledge in relation to the movement patterns.
- (b)** Up to 3 marks were available; 1 mark for a basic description and 2-3 for a detailed description of any appropriate treatment method used for sports injuries. Many candidates produced a basic description and mainly chose to describe the characteristics of PRICE or simply confused the question with prevention measures such as warm-ups and cool downs rather than treatment methods. Those achieving higher marks gave a detailed description of a variety of treatment methods such as massage and thermotherapy. These candidates were able to relate to their own injury experiences and apply this knowledge to the question.
- (c)** Up to 4 marks were available; 1-2 marks for a basic description and 3-4 marks for a detailed description of factors causing fatigue. Good answers showed sound knowledge of a variety of causes of fatigue and explained these in detail, showing good scientific knowledge and application. The majority of candidate responses focused on providing basic responses such as a lack of rest, overtraining or poor nutrition. Centres should ensure that candidates are clear on the physiological causes of fatigue.
- (d) (i)** In general, candidates offered good responses for the 2 marks available in relation to defining the 2 terms or showing the difference between them, with the majority of candidates recognising that they could simply state that skill is 'learned' and ability is 'innate' and still gain full marks compared to those giving detailed definitions.
- (ii)** Up to 4 marks were available; 1-2 marks for a basic explanation and 3-4 marks for a detailed explanation (using practical examples throughout). Candidates scoring 1-2 marks produced a basic response to this question and mainly focused their answers around extrinsic feedback and their explanations of these were very vague and they very rarely related these to how they work in practice. Candidates scoring 3-4 marks explained in detail how such elements as knowledge of results and knowledge of performance enabled performers and coaches to focus on specific elements of performance and gave strong practical examples of how this would work in practice and also related these to the stages of learning extremely well.
- (e)** Up to 4 marks were available for a knowledge of factors and a further 2 marks were available for application to practical examples. Those accessing 2 marks demonstrated a good knowledge of a variety of factors that affect the cohesiveness of a team, such as leadership style or personal factors and environmental factors, such as age, ability and time together, but failed to apply these to sports examples or referred to sports performance in a very general way.

Those candidates achieving 4 marks offered two clear factors and applied these to examples from sport to better demonstrate their knowledge and application of this topic area.

- (f) (i) This was a banded question and there were inconsistencies in the quality of answers presented by the candidates. The majority of candidates showed good knowledge of the types of goal setting that could be used with performers but, most were limited by their lack of application and evaluation with regard to how they can be used effectively to avoid plateaus in performance. Candidates accessing Band 3 gave stronger responses that looked at responding to the question posed, looking at how the various types of goals could be used to benefit performance as well as looking at how the incorrect use of goals can cause performance to stagnate, or in some cases, decline.
- (ii) This was a banded question and there were again inconsistencies in the quality of answers presented by the candidates. The majority of candidates again showed good knowledge of the manipulation of training variables to optimise performance for competition, prevent overtraining, and progress performance but, most again, were limited by their lack of application and analysis with regard to how useful it is in improving performance. Candidates accessing Band 3 gave stronger responses that looked at responding to the question posed. Looking at how the various training cycles could be used to benefit performance.

- Q.2**
- (a) In general, candidates offered good responses for the 2 marks available in relation to identifying the two types of stress: eustress and distress, and correctly describing these terms. However, a good number of candidates confused this question with types of anxiety and gave responses relating to this topic area rather than 'stress', thus, showing a lack of knowledge with regard to this aspect of the specification.
 - (b) Many candidates approached this question with confidence in their knowledge and application of Newton's 3 laws and gave good examples of how they practically relate to diving. Those candidates achieving lower marks on this question either confused the three laws or did not apply them to diving examples. Centres clearly need to focus candidates on reading the question carefully as the question clearly asks candidates to relate their knowledge of the laws to diving examples.
 - (c) Up to 3 marks were available; 1 mark for a basic explanation and 2-3 marks for a detailed description. Candidates scoring 1 mark produced a basic response to this question and mainly focused their answers around chemoreceptors detecting chemical changes in the blood but failed to relate their role to the regulation of breathing. Candidates scoring 2-3 marks described in detail how the chemoreceptors relayed the information detected and how this was then used to regulate breathing.

- Q.3** (a) This was a banded question and there were again inconsistencies in the quality of answers presented by the candidates. The majority of candidates showed good knowledge of the 3 theories with the majority showing strongest knowledge in relation to the trait and social learning perspectives compared to the interactionist perspective, but most were limited by their lack of application and evaluation of these theories. Candidates accessing Band 3 gave stronger responses by applying and evaluating all three theories.
- (b) This was a banded question and there were again inconsistencies in the quality of answers presented by the candidates. The majority of candidates showed good knowledge of at least 3 theories of arousal, with the majority showing strongest knowledge in relation to the drive and inverted U theory compared to Hanin's individual zones of optimal functioning, but most were limited by their lack of application and analysis of these theories. Candidates accessing Band 3 gave stronger responses by applying and analysing at least 3 theories.
- (c) Up to 3 marks were available; 1 mark for a correct definition of stroke volume and a further 2 marks for candidates showing correct workings out and the correct answer in either ml/min or l/min. Candidates scoring 1 mark were able to define stroke volume but used the wrong equation and, therefore, got the wrong answer by dividing SV by HR rather than multiplying. Candidates scoring 3 marks were able to correctly define SV and used the correct equation $SV \times HR$ and, therefore, gave the correct answer.
- (d) Most candidates achieved 3 marks by correctly outlining 3 mechanisms, such as pocket valves, muscle pump and gravity as examples. Those that achieved fewer marks outlined less than 3 mechanisms and those who achieved '0' simply identified mechanisms and did not outline them.
- (e) Up to 3 marks were available; 1 mark a basic explanation of figure 5 in relation to HR changes and a further 2-3 marks for a detailed explanation. Candidates scoring 1 mark were able to give a basic explanation of the stages of figure 5 but did not apply this to any physiological knowledge; they simply gave a vague explanation as to what figure 5 was showing. Candidates scoring 3 marks were able to correctly apply detailed knowledge of physiology to the changes to HR throughout figure 5, for example, referring to the anticipatory rise in HR being down to thinking about the exercise to come and the release of adrenaline in response.
- (f) This was a banded question and there were again inconsistencies in the quality of answers presented by the candidates. Those candidates achieving marks in Band 3 showed very good knowledge of the reasons for and against the legalisation of doping in sport, but those achieving marks in Band 1 were limited by their lack of knowledge of this debate, or simply agreed with the statement being posed and did not spend any time responding to the other side of the debate. Some candidates in this band also misinterpreted the question and simply listed different banned substances and their side effects.
- Q.4** This was a banded question and there was a range of responses for this question. Most candidates achieved marks in Band 2 by showing good knowledge of the issues surrounding media, sponsorship and commercialisation. Candidates showed a good level of detail around the area of the media and often referred to the golden triangle and the symbiotic relationship between sport, sponsorship and the media.

Those candidates achieving a lower mark in this question appeared to be too focused on the statement rather than recognising that the question was asking them to focus on the pros and cons of these 3 areas. It was, therefore, this main focus in some answers which limited their ability to achieve marks in Band 3.

Limited awareness here was shown of the wider impacts of these 3 areas on both performers and sport as a whole. Any discussion of the areas clearly gave too much consideration to one area over another and, therefore, lacked balance in their responses. Judgements made were often not based on evidence, just opinion, with a lack of examples to justify points made. In contrast, stronger responses did discuss the positive and negative impacts of all 3 areas on performers and the world of sport with strong evidence used to convey their arguments, such as the impact on entertainment, gate receipt money, sport, facilities, training equipment and talent development. They also explored the negative aspects surrounding the debate, such as the increase in deviance, changes in infrastructure, and widening the gap between sports by placing too much media and commercial influence on one sport over another.

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 3 assessment objectives and their weighting within the paper to ensure candidates are not wasting time writing extensively on answers only requiring identification or description.

PHYSICAL EDUCATION

GCE A LEVEL

Summer 2023

COMPONENT 3: IMPROVING PERSONAL PERFORMANCE IN PHYSICAL EDUCATION

General Comments

Centres continue to be prepared for the process of moderation through detailed NEA guidelines available online. Centres are also able to access a range of CPD opportunities that provide additional guidance for improving delivery and support to students for all aspects of the A-level qualification.

The range of activities assessed continues to demonstrate the diversity available within the subject. However, we do understand the practical issues in running a moderation day using just their own school or college students, especially with game activities.

Most centres submitted their marks on time (first Friday in March) but there were some centres who did not. We would strongly advise centres construct a moderation checklist with key dates to ensure all deadlines are met.

To support the centre marks, we encourage centres to standardise their marks across all activities through robust internal standardisation to ensure consistency. If external coaches are used to assess candidates, they should be involved in the internal standardisation process.

For summer activities, e.g., athletics and cricket, evidence should be sourced early in the academic year to support the students. Please note, evidence should be of the student performing or coaching within the academic year for which the candidate was entered.

Comments on individual questions/sections

Practical Performance

Centres were assessing students following the performance pathway. Centres continue to be accurate with their assessment and it was evident that centres had prepared their students thoroughly for practical moderation.

Most centres are using the full range of marks within the band. However, there are a handful of centres that still do not feel confident enough to put students in the top band.

Good practice seen was where centres had supportive evidence of individual students to be utilised if the students did not perform as well on the day of moderation. In some cases, the live performances did not allow the students to be seen at their best. For example, using younger performers or performers from cohorts who do not play regularly, to try and show a top band performer, simply did not put the candidates under enough pressure to demonstrate their true ability.

Candidates moderated were placed in the correct rank order, with correct banding of the performance evident within the activities moderated. Good practice observed included progressive drills in the warm-up to highlight both technical and tactical ability.

Most Centres videoed the entire process, as requested, but there was a significant delay in some isolated cases in sending this evidence to the moderator, post moderation. It is important for centres to realise the significance of recording the moderation as it provides supportive evidence for centres in case of an appeal.

Practical Coaching

Coaching was assessed to varying degrees of accuracy with best practice being demonstrated by those students who lead sessions using a 'Rich Task', which enabled individual feedback to students performing a more complex skill – i.e., not just running drills.

In some cases, coaching was basic or not specific enough to allow students the opportunity to access the higher marks. Coaching should be practiced and refined using a cohort of students of an appropriate level to enable the candidate to display their appropriate coaching knowledge.

Good practice is to provide a session plan and scheme of learning to show how this specific session fits into the overall time plan.

Video Evidence

Video quality was generally good and the use of 'Veo Camera' was quite common and when used gave very clear footage. The best video evidence had a student introduction so you could clearly see each candidate and/or used a circle to highlight the player being assessed within the footage.

Videos are generally of a very high quality with the candidate clearly identified throughout. The issues arise when this is not the case (infrequently) and centres have awarded a mark without looking at the evidence (perhaps relying on what they know of a candidate) and then the DVD evidence (i.e., off-site) does not represent the level / have enough evidence to demonstrate the mark awarded.

Centres need to be careful to use video footage of the student whilst studying on the course as some evidence sampled was outside of the qualifications start dates.

Good practice is as follows:

- Screen shot identifying candidate at start / throughout the footage (candidate circled.)
- Candidate commentary to set the scene.
- Veo (equiv.) footage is outstanding, but we understand the cost implications.
- Clips of continuous play which is consistent with live moderation.
- A wide range of evidence in varying situations which increases accuracy of assessment more.

PPAE

The A2 PE written coursework (Personal Performance Analysis & Evaluation – PPAE) was generally well attempted. Students accessing the higher grades certainly provided evidence of initial analysis, evaluation of research, the effectiveness of the training programme and an overall analysis of the whole programme.

The quality of each section varied, with most centres providing detailed, well written initial analysis of performance sections. The use of diagrams / pictures of practical performance enhanced this section.

However, centres struggled with the research section, and this often resulted in little or no scientific content or candidates included irrelevant material. This is a CPD focus for the next academic year.

There is evidence in the Evaluation Section of the PPAE that candidates are lacking the necessary skills to provide detailed analytical evaluations which would access the higher mark bands. The more successful PPAE's provided in depth evaluations, drawing logical conclusions from the data presented and candidates were able to demonstrate excellent knowledge of underpinning theory. This allowed candidates to make detailed recommendations to improve future performance.

Most candidates successfully completed the training programme and were able to analyse the training programme effectiveness. Good practice was the use of a training diary to evidence monitoring and adaptations to the training programme. An area to improve is that of evidencing a detailed analysis of the initial data from section 1 (Comparing Pre and Post training programme data.)

In the evaluation of the programme section candidate performance levels dropped. Again, this suggests the candidates are lacking the necessary skills to provide detailed analytical evaluations which would access the higher mark bands.

Many centres are using electronic platforms to compose their projects and centres should be reminded that coursework should be annotated to show where students have accessed the marks that have been awarded. Appendices were well used, although sometimes the appendices were double the content of the coursework itself. Centres should focus on quality not quantity of written coursework to meet the assessment criteria.

Summary of key points

- The range of activities assessed continues to demonstrate the diversity available within the subject.
- Centres continue to be accurate with their assessment of practical.
- Internal standardisation helps to improve the accuracy of assessment.
- Coaching was assessed to varying degrees of accuracy with best practice being demonstrated by those students who lead sessions using a Rich Task.
- Videos are generally of a very high quality with the candidate clearly identified throughout.
- There is evidence in the Evaluation Sections 2 & 4 of the PPAE that candidates are lacking the necessary skills to provide detailed analytical evaluations which would access the higher mark bands.
- Many centres are using electronic platforms to compose their projects and centres should be reminded that coursework should be annotated.
- We would strongly advise centres construct a moderation checklist with key dates to ensure all deadlines are met.



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