



GCE A LEVEL EXAMINERS' REPORTS

PHYSICAL EDUCATION A LEVEL

SUMMER 2022

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

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PHYSICAL EDUCATION

GCE A LEVEL

Summer 2022

COMPONENT 1: Exploring concepts in Physical Education

General Comments

The majority of candidate's demonstrated good knowledge and understanding. They were able to recall information across the paper accessing AO1 marks consistently. 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 understand 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.

Comments on individual questions/sections

- Q.1**
- (a)** The majority of candidates accessed the mark. Those who answered 1 incorrectly mistook the graph as a positive learning curve.
 - (b)** Generally this was fairly well answered with many candidates receiving 2 out of 3 marks. Candidates were able to outline the use of praise and tangible rewards with some candidates further exploring the use of increased stimuli and different types of practice
 - (c)** Few candidates achieved full marks on this question. Overall, there was a good understanding of DARMMM but candidates failed to support their knowledge with appropriate sporting examples to access the AO2 marks.
 - (d)** Candidates were able to justify their placement by demonstrating the difference between open and closed and the continuous discrete continuums. Appropriate examples were used in the majority of answers. Pupils failed to achieve marks where they had not been specific in their choice of skills e.g., gymnastics routine is not deemed specific whereas a summersault would.
 - (e)** Generally well answered. Candidates had a clear understanding of the types of reinforcement. Again, AO2 marks were lost as relevant examples didn't support the theory. Some candidates were confused and described the different types of guidance.

- Q.2**
- (a)** Although that majority of candidates attempted this question there was a poor understanding of the plane of movement required. Many candidates were able to identify the correct muscle types, agonist, and type of contraction.
 - (b)** **(i))(ii)** Although candidates were able to describe the makeup of each lever theory, they were unable to link this to a mechanical advantage / disadvantage in sport.
 - (c)** This question proved very challenging for many candidates. Marks were achieved through explaining angular velocity or angular momentum. Apart from a few candidates, responses were superficial. Better candidates were able to provide sporting examples linked to spinning in skating to support their answer
 - (d)** There was a more detailed response to this question. Candidates demonstrated a good understanding of fluid mechanics, relating their answers to swimming and cycling events.
- Q.3**
- (a)** There was a heavy emphasis in this question on the physical motives for taking part in physical activity. Many answers related to improving health. Candidates that achieved 3 / 4 marks had given a more detailed outline in more than two areas (physical, emotional, social, psychological.)
 - (b)** A well answered question where many candidates used the triadic model to support their examples.
 - (c)** The majority of candidates were able to outline the role of persuasive communication and identify the factors that make it an effective tool.
 - (d)** This question proved very challenging for many candidates. Better candidates were able to analyse the use of performance accomplishments, modelling, verbal persuasion, and emotional arousal, as opposed to just explaining them.
- Q.4**
- (a)** Lots of candidates recognised that social institutions involved a group of people focused on a common purpose. Where no marks were awarded, the question had not been attempted.
 - (b)** It was clear that many candidates had some knowledge and understanding of the role of sport in society. Common answers included for social control and national identity. More developed answers made reference to the development of leadership skill and strategic thinking.
 - (c)** A well answered question with the majority of candidates accessing at least 2 or 3 out of the 4 marks available. Candidates had a good understanding of GPS tracking and how they may be used by coaches.
 - (d)** There was a varied response between centres. Many candidates had good knowledge of professional sport, allowing them to gain AO2 marks. However, lots of AO3 marks were not achieved as the command word in the question asks the candidates to **discuss** the statement including making judgement, with relevant examples, against the amateur ideal.

- Q.5**
- (a)** Generally well answered correctly by the majority of candidates. Candidates that were able to develop their justification, with reference to how creatine would improve performance, achieved marks in the higher band
 - (b)** Many candidates provided a developed explanation related to OBLA and the depletion of energy stores. More detailed explanations also included the process of oxygen debt.
 - (c)** Most candidates were able to detail that post exercise lactic acid is converted back into pyruvic acid as part of the recovery process. Better candidates were able to provide detail of these using percentages of the conversion into glucose, protein, water, and carbon dioxide via the Cori Cycle.
 - (d)** Candidates that scored well on this question discussed both the advantages and disadvantages of altitude training, using specific examples linked to endurance athletes.
 - (e)** Many candidates demonstrated knowledge and understanding of the energy systems, and some developed their points with specific examples and great detail e.g., they were able to make reference to intensity and duration, specifically to training programmes. Again, it was a lack of understanding of the command word that meant some candidates lost AO3 marks as although they were able to recall information they had learnt they did not analyse the pros and cons of a coach having this information.

Summary of key points

- All centres would benefit from developing the candidates understanding of the command words in relation to the assessment objectives.
- Continue to reinforce the three assessment objectives and their weighting within the paper.

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COMPONENT 2: Evaluating Physical Education

General Comments

This Summer 2022 A550U20-1 Component 2 examination paper was the second A Level Physical Education Paper of this specification and series. This 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, especially given the unprecedented and difficult circumstances candidates have faced during recent years in comparison to previous exam series.

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. In general, evidence would suggest that candidates understood specification content and what was required of them. However, there was evidence of some misinterpretation of questions and in some cases, some questions were left unanswered with the majority of non-attempts being on questions 2(b), 2(c)(i) and 2(c)(ii).

Time management was more of an issue for some candidates in relation to question 4 and those candidates scoring higher on this question appeared to have attempted this question first. Some candidates wrote extensively in questions that only required identification and description.

In response to the 20-mark question, there was a mixed approach which required a different examination technique for the length of answer required. Candidates continued 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 interpreted the question correctly, applying their knowledge and relating their points to strong examples.

Overall, 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. Where 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.

The most successful questions were 1(a), 1(b)(ii), 1(c), 1(d) and (1e) on reaction time, Lifestyle and well-being (2a) and calculating radians (3a), The least successful questions were, types of ability (2b) and part practice (2ci) and (2cii), audience effects (3b), self-efficacy and self-confidence (3d),

Comments on individual questions/sections

- Q.1 (a)** Candidates were required to identify the type of joint and the movement action. Two marks were available for the identification of the correct joint type as 'hinge' and the correct movement action as flexion. Overall, all candidates showed a good awareness of the joint in use, but some candidates lacked clarity on exactly what movement action this was with many identifying the action as extension or abduction.
- (b) (i)** Up to 4 marks were available; 1-2 marks for a basic description and 3-4 for a detailed description of any structural or functional characteristics of this fibre type. Many candidates produced a basic description of the latter and mainly chose to describe the characteristics from a functional point of view recognising their fast speed of contraction, high force of contraction, resistance to fatigue and aerobic capacity in relation to prolonged high-intensity activity. Those achieving higher marks gave a detailed description of these characteristics and were able to make strong links between the structural characteristics and their functions i.e., small motor neurons innervate relatively few muscle fibres and form motor units that generate small forces, whereas large motor neurons innervate larger, more powerful motor units enabling a faster speed of contraction to take place.
- (b) (ii)** Good answers showed sound knowledge of a variety of long-term adaptations and their effects whilst weaker answers lacked detail, giving a vague overview which did not specifically look at the effects of these adaptations. The majority of candidate responses focused on the long-term adaptations of the cardiovascular and respiratory systems with very few responses looking outside of these two systems. Centres should ensure that candidates are clear on the effects of these physiological adaptations to sporting performance.
- (c)** Candidates offered good responses for the two marks available in relation to the potential problems associated with the use of tangible rewards. On the whole, the huge majority of candidate responses showed a great level of understanding of what tangible rewards are and the problems with their overuse in relation to their impact on intrinsic motivation, becoming meaningless and leading to demotivated performers,
- (d)** Up to 4 marks were available; 1-2 marks for a basic explanation of the advantages of using video analysis to improve the technical aspects of sporting performance and 3-4 marks for a detailed explanation (using practical examples throughout) of the advantages of using video analysis to improve the technical aspects of sporting performance.

Candidates scoring 1-2 marks produced a basic response to this question and mainly focused their answers on split screen, freeze frame and slow-motion examples 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 slow-motion work allowing performers and coaches to zoom in on specific elements of performance and gave strong practical examples of how this would work in practice.

- (e) Up to 2 marks were available for a knowledge of factors that may affect reaction time 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 reaction time, such as body temperature, age and gender 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 of this topic area.
- (f) This was a banded question and there were inconsistencies in the quality of answers presented by the candidates. Candidates giving limited responses to this question either gave a very one-sided answer, looking at it from either a positive or negative standpoint and did not really relate this to the performer. Some candidates only looked at the use and impact of technology from an official or spectator viewpoint. Candidates accessing Band 3 gave stronger responses that looked at responding to the question posed from both a positive and negative standpoint and, from the perspective of the performer. Looking at how various pieces of technology can be used to benefit their performance as well as looking at how the use of technology and access to technology can throw up various issues with regard to cost, inequality of access, reliability, over-reliance, and its potential links with deviancy.

- Q.2**
- (a) This was a banded question and overall, the majority of candidates' responses were strong. Candidates showed good knowledge of the effects of lifestyle on the bodies systems with the majority choosing to look at it from a physical point of view by referring to issues such as strokes, CHD, diabetes etc. Candidates giving limited responses to this question mainly looked at the negative physical impacts of a sedentary lifestyle, smoking and alcohol intake. In contrast those candidates that looked at both the positive and negative impacts of lifestyle choice from a much wider perspective; a physical, psychological, and social point of view, giving evidence for points being made within their discussion achieved marks in the higher bandings.
 - (b) Many candidates did not get these definitions correct and confused them with the definition for 'gross' and 'fine' motor skills. Centres clearly need to focus on this area of the specification content as it was very clear that candidates had very little, if any, knowledge of this topic area and simply referred to large muscular movements. Hence, those candidates achieving 2 marks clearly understood that gross motor abilities are physical proficiencies, such as stamina and strength, and psychomotor abilities are psychological proficiencies, such as decision making.
 - (c)
 - (i) Those candidates that achieved AO1-2 gave the correct definition of part practice and gave an example from sport, for example, breaking down a tennis serve into its sub-routines in order to perfect specific elements of this skill, therefore, correctly applying their knowledge. Weaker responses however, simply focused on giving a basic description of part practice with no examples to illustrate their knowledge. Some candidates described the progressive-part method of practice, and some chose not to answer this question at all.
 - (ii) There were inconsistencies in the quality of answers presented by the candidates. This type of question can be tricky if candidates have given the wrong response in part c(i) i.e., they have described the

wrong method of practice or have simply chosen not to answer the previous part of the question, which then meant this question also went unanswered. Those accessing 3 marks gave stronger responses that looked at outlining either two advantages and one disadvantage of this practice type or, two disadvantages and one advantage of part practice.

- (d) Up to 2 marks were available for using Figure 2 to explain the effect of aerobic training on $VO_2\text{max}$ and a further 4 marks were available for explaining the benefits of a higher $VO_2\text{max}$ on sports performance. The majority of candidates achieved 2 marks for their use of Figure 2 to show that $VO_2\text{max}$ had increased as a result of training and referred to specific data in their responses to better illustrate this increase post training. The few candidates that achieved 3-4 marks went on to look at how this increase in $VO_2\text{max}$ could benefit sports performance.
- (e) This was a banded question and overall, the majority of candidates showed a good knowledge of HIIT training in their responses and gave an example of this training type. Those achieving marks in Band 2 simply looked at the positives of this training type on performance in sport and therefore, failed to analyse in any greater detail. Those candidates that achieved marks in Band 3 ensured they had looked at the pros and cons of this training type to improve sports performance.

- Q.3**
- (a) Most candidates got this question right by showing the correct formula, working out, and the correct answer and therefore, achieved the full 3 marks available. Those that achieved 2 marks, gave the correct answer as '16' but did not get the axis of rotation correct, and those achieving 1 of the 3 marks available only got the axis of rotation correct.
 - (b) Limited responses only explored effects of an audience on social inhibition and facilitation. Good responses explored positives and negatives of at least two theories mainly, Zajonc and Barons Distraction Conflict Theory and showed a good knowledge of social inhibition and facilitation and good application of knowledge to two theories and some additional factors such as proximity of crowd and personality were also explored. A fuller answer for band three included, candidates referring in detail to several theories and their positive and negative effects on performance. These responses explored points further i.e., the fact that home advantage does not always work in the favour of the home side due to pressure etc, evaluation apprehension very much depends on your experience and who is doing the judging, and reference was made to plenty of examples throughout with some candidates making strong links to other aspects such as the Self Presentation theory.
 - (c) Candidates generally understood the content of this question and the majority demonstrated good knowledge of the three main types of reinforcement (positive, negative and punishment) and recognised how these should be used. On the whole, candidates mainly accessed around 50% of the marks available in this question by showing a good knowledge but a limited assessment of the types of reinforcement and their role in learning motor skills, looking at how they might be used and their impact on strengthening or weakening the S-R bond, but not really exploring when they should be used and the impact this would have on the learning of motor skills.

- (d) 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 what is meant by self-efficacy and self-confidence. However, the majority of candidates were not able to evaluate the impact of both concepts and their answers mainly focused on self-efficacy and its impact on performance, or some candidates misinterpreted the question and referred to aspects such as NACH and NAF rather than efficacy and confidence. Stronger candidates gave a much more succinct and logical response showing detailed knowledge across both aspects and how they impact performance, referring in detail to both Bandura's and Vealey's models of self-efficacy and confidence and related these to practical examples throughout.

Q.4 There was 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, from a political standpoint, referring in detail to the various political events and controversies that have impacted on sport. Candidates showed a good level of detail around these political involvements, giving key dates and negative or positive impacts of these events but this appeared to be the main focus in the majority of answers, which limited their ability to achieve marks in Band 3. Limited awareness here was shown of the wider government involvements that have, and do, take place and the positive and negative impacts of these. Any discussion of the debate clearly gave too much consideration to the political arguments surrounding the debate and not enough balance was shown across both aspects.

Judgements made were not based on evidence, just opinion with a lack of examples to justify points made. Centres should also avoid providing templates/model answers for banded questions as these limited candidates accessing higher mark bandings as they are not always aware of how to adapt these responses to fit the varying ways these questions can be asked. In contrast, stronger responses did discuss issues surrounding government and political involvement in sport and the pros and cons of these with strong evidence used to convey their arguments such as the impact on pool of talent, the shop window effect, funding, involvement in Olympic bids, as well as considering political influence on votes, media exposure and its impacts, negative aspects surrounding the debate, such as the increase in deviance, changes in infrastructure, environmental issues and widening the gap between sports by placing too much influence on one sport over another or reducing/removing funding for poor performance on the world stage, and therefore providing a more reasoned debate.

Summary of key points

- Centres are encouraged not to place too much emphasis on candidates' revising and regurgitating model answers to longer answer questions as this has the potential to limit candidates accessing Band 3 as they struggle to adapt these to the questions being asked.
- 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. This will enable them to access Band 3 marks.
- Continue to reinforce the three assessment objectives and their weighting within the paper.

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COMPONENT 3: Improving Personal Performance in Physical Education

General Comments

This was the first series of moderation since 2019 because of the Covid pandemic. Centres were offered the opportunity of a live moderation or moderation through the submission of video evidence. Each Centre was appointed a moderator and centres arranged either an individual moderation, not cluster based, or moderation through the submission of video evidence.

The majority of centres submitted their marks on time (first Friday in March) but there were several centres who did not. Whilst we understand the moderation process had been changed during Covid centres must adhere to the submission dates.

The range of activities assessed continues to demonstrate the diversity available within the subject. Again, centres were predominantly assessing students following the performance not coaching pathway. Centres continue to be accurate with their assessment and it was evident that centres had prepared their students thoroughly for practical moderation.

The number of centres offering AS PE seems to be in decline and the number of centres that opted for a moderator visit were less than those centres who submitted video evidence. It was refreshing to have the opportunity to moderate live performance and coaching once again. However, we understand the practical issues in running a moderation day using just your own school or college students, especially with game activities. Good practice observed 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.

Coaching was assessed to various 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 but setting up scenarios. In some cases, coaching was basic or not specific enough to allow students the opportunity to access the higher marks.

Video evidence in most cases was very good with some exceptional examples. However, there were some not so good examples. Centres should clearly identify students, providing sufficient evidence at an appropriate level to support the marks awarded. This year centres were issued with additional guidance and many centres took this on board and provided evidence that fully supported the marks awarded. Whilst we appreciate the difficulty of collecting suitable evidence this is the only evidence we can use to moderate centres.

Live centre moderation took place for the first time since 2019. Each centre was appointed an individual moderator and the centre was assessed independently, not in a cluster. Centres were very creative in providing sufficient student numbers to allow game activities to take place. This was welcomed and we appreciate the difficulty of organising full sided game activities at an appropriate level to allow students to perform at the level that their marks suggested. Good practice included progressive warm up drills, modified half court games, and teacher lead sessions to show technical and tactical student ability. Centres videoed the entire process, as requested. This provided supportive evidence in case of an appeal. We anticipate the return of cluster moderation visits next year.

Comments on individual questions/sections

Practical

The range of activities assessed continues to demonstrate the diversity available within this subject. Predominantly candidates were assessed through the performance strand. Centres continue to be accurate with their assessment and it was evident that centres had prepared candidates thoroughly for practical moderation both live and via video!

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 warmup to highlight both technical and tactical ability. Those students who provided video evidence also included voice overs to highlight tactical, psychological, or physical knowledge to support their technical evidence.

It was apparent that some centres found the live moderations difficult to organise particularly with low numbers of candidates or indeed because of the timings of moderation visits. We anticipate the return of cluster moderations next year! However, the majority of centres provided very good evidence both live and in video format to enable the moderation process to take place and in the majority of cases, support the marks awarded by the centres. We would like to thank the staff who have clearly been creative, and effective in their assessments.

PPAE

The A2 PE written coursework element (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.

Centres are reminded to annotate the scripts to show where and why marks were awarded. Many centres submitted PPAE's that were not annotated. Several centres provided substantial information within the appendix which was of little significance. The word count is 2500 – 3500!

Good practice was evident throughout the PPAE's which included the following

Section 1 – Self-analysis

- Candidates completed an initial analysis of personal performance.
- The candidates demonstrated a clear analysis of their own strengths and weaknesses, with a clear area for improvement identified.
- The centres candidates identified training methods to improve future performance, based on findings from analysis of their own performance.
- The centres applied key knowledge throughout, with evidence selected appropriately to help improve future performance

Section 2 – Research

- The centres candidates have made recommendations and a plan for improving performance.
- The candidates have drawn the information together to draw sound and logical conclusions.

- The candidates make recommendations and a plan for improving performance, based on initial analysis and research.
- The PPAE's use valid and reliable methodologies for improvement.
- The candidates use technical terminology effectively.

Section 3 – Plan is evident, and the plan is evaluated. The plan is monitored.

- The candidates training programmes were analysed and its effectiveness assessed.
- An analysis of the candidate's performance was detailed following completion of the programme.
- The candidates analysed the training programme.
- The analysis of appropriate quantitative data generated while monitoring the training programme is included.
- The changes to the plan are detailed and explained.

Section 4 – Evaluation of the programme is evident.

- Valid conclusions are made. Recommendations were made for future analysis.
- Candidates made clear evaluations of the strengths and weaknesses of the programme and drew sound and logical conclusions.
- Recommendations and a plan for improving future performance is present.
- Recommendations are strongly evidence-based and supported by quantitative data

Summary of key points

- To support the centre marks, we encourage centres to actively internally standardise their marks across activities, to ensure consistency. If external coaches are used to assess candidates, they should be involved in the internal standardisation process. Most centres provide video evidence of some activities particularly offside activities which is a perfect opportunity to use this process.
- Finally, 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.



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