

CCEA GCSE Physical Education
(Summer Series) 2014

Chief Examiner's and Principal Moderator's Report

physical
education

Foreword

This booklet outlines the performance of candidates in all aspects of CCEA's General Certificate of Secondary Education (GCSE) in Physical Education for this series.

CCEA hopes that the Chief Examiner's and/or Principal Moderator's report(s) will be viewed as a helpful and constructive medium to further support teachers and the learning process.

This booklet forms part of the suite of support materials for the specification. Further materials are available from the specification's microsite on our website at www.ccea.org.uk

Contents

Component 1: Developing Knowledge, Understanding and Skills for Balanced, Healthy Lifestyles and Participation in Physical Activities	3
Component 2: Developing and Maintaining a Balanced, Healthy Lifestyle (Controlled Assessment)	9
Component 3: Individual Performance in Physical Activities (Controlled Assessment)	10
Contact details	12

GCSE PHYSICAL EDUCATION

Chief Examiner's Report

Component 1 Developing Knowledge, Understanding and Skills for Balanced, Healthy Lifestyles and Participation in Physical Activities

The range of questions in this year's paper allowed candidates to respond positively. At the same time the paper was effective in differentiating between the wide range of abilities of the candidates entered. Question 17 in particular allowed for differentiation between the top range of candidates.

The level of language used in the examination paper was candidate friendly, appropriate and seemed to be clearly understood. Where there appeared to be any misinterpretation or misunderstanding of a question, it will be mentioned in the comments below.

It was clear that the candidates had sufficient time to complete the paper. Most of the candidates attempted all of the questions. Candidates clearly demonstrated their knowledge and understanding of the subject content.

The Quality of the Written Communication continued to be wide ranging. Many candidates communicated their answers clearly and concisely with the appropriate use of technical terms but there were still some candidates who struggled to put their answers into a meaningful written form. Some of the candidates' handwriting can be difficult to read. This is a concern.

From an overview of this year's responses, the points made below on specific questions may be of help in preparing future candidates for the written examination paper.

- Q1 & 2** Nearly all candidates achieved full marks for these two questions. However, in Question 1 a few candidates provided examples of "do not smoke cigarettes" or "avoid taking illegal drugs" as positive things that a person can do in their lifestyle to help improve their physical health. Answers with "do not" and "avoid" for Question 1, were not considered as being positive things that a person could do in their lifestyle to help improve their physical health. Likewise in Question 2, "not exercising" was not considered as a negative thing, however, lying in bed all day and watching television was considered to be a negative things.
- Q3** This question was answered well by most candidates, showing that good awareness of dietary guidelines. Many candidates gave the recommended percentage breakdown between carbohydrate, protein and fat as three separate dietary guidelines. It was decided that they would be accepted as three different guidelines rather than one.
- Q4** Better candidates stated two physical effects that smoking tobacco has on the body and then explained how each of the physical effects affected the body. This is what the question asked. Weaker candidates often either stated two physical effects that smoking tobacco has on the body or stated two outcomes from smoking tobacco. For example, smoking tobacco can make you short of breath. These candidates gave an outcome, but did not state the physical effect that caused the shortness of breath.

- Q5** Usually well answered as candidates only had to state two long-term effects that can develop as a result of too much alcohol over a prolonged period of time.
- Q6** Most candidates were able to give three good health reasons to support the case for active teenagers having sufficient quality sleep each night. Some candidates answered the question from the perspective of active teenagers not getting sufficient quality sleep each night. This meant that these teenagers would not be alert the next day or they would be irritable. These answers were normally acceptable.
- Q7** This question differentiated between the range of abilities of the candidates.
- Candidates who achieved the highest marks were always able to accurately define cultural heritage.
- The top scoring candidates clearly explained, using examples, how cultural heritage can develop within families over generations, i.e. more than one generation. Many of the other candidates limited their explanations and examples to the passing on from father to son, mother to daughter or parents to their children. Many of the answers for how cultural heritage can develop at community level explained how a sport could become popular in an area, but the answers did not always cover how this would continue from generation to generation.
- Weaker candidates were generally more vague about the definition of cultural heritage, for example, “Cultural heritage is what is going on around you.” At community level, the answers often explained cultural differences between communities rather than explaining how playing a sport can become a tradition at community level and be passed on from generation to generation.
- Q8** This question asked for benefits of regular and appropriate exercise other than those from the physical changes that occur in the respiratory, circulatory and muscular systems.
- Most candidates correctly identified other benefits of regular and appropriate exercise. Many of these candidates competently explained the benefits, for example, regular and appropriate exercise can help with weight control. This is because it burns-up fats. It also raises the metabolic rate, which remains high even after exercise, so the body continues to burn off excess fats.
- Some candidates stated acceptable benefits but did not provide explanations for some or all of them. For example, they simply stated that regular and appropriate exercise helps with weight control.
- Some candidates mistakenly included in their answers physical changes that occur in the respiratory, circulatory or muscular systems and explained the benefits that they bring.
- Q9–11** Most candidates were able to identify the training methods used in Workouts 1, 2 and 3 in the three questions.
- Nearly all candidates correctly identified the components of physical fitness that the training methods were most likely to improve.
- In all three questions where the candidates were asked what evidence they would present from the workouts to explain their choice of components, weaker candidates often commented without any specific reference to the information provided in the workouts. Most candidates, however, did select appropriate information from the workouts and explained with varying degrees of competence how one or more of the intensity of the workouts, the number of repetitions completed or the rest periods

between each of the repetitions accounted for their choice of the component of physical fitness for each of the three questions.

- Q12**
- (a) In the given situation, some candidates incorrectly explained the term “recovery rate” as the time given to recover between repetitions or sets. Some candidates explained it as the time for the heart rate to get back to normal or back to its resting rate. Most candidates explained it as the time it takes for the heart rate to return to its resting rate having done exercise or a fitness test. This answer was sufficient to be awarded the two marks. Some candidates were more accurate and realistic and explained the “recovery rate” as the time it takes the heart rate to return to a set rate having completed a set fitness test.
- (b) Most candidates were able to correctly explain how they would know from the results of recorded recovery rates whether the aerobic training was effective or not. However, the explanations as to how to record the recovery rates to judge the effectiveness, varied from being very loose with regard to test protocol (results unreliable) to the testing being strictly controlled (results reliable).

- Q13** A few candidates make absolutely no reference to Fig. 1 or Fig. 2 in their answers and therefore did not explain the information that the two figures provided.

Most candidates explained that Fig. 1 showed what happens to blood flow when the body is at rest and Fig. 2 showed what happens to blood flow when the body is exercising. In addition to this, the detail varied from general statements, for example, most blood goes to the muscles when exercising to detailed explanations that used the percentage figures given to refer to what was happening in each of the figures.

- Q14** Most candidates explained that Fig. 3 represented the blood flow to the muscle cells when at rest and Fig. 4 represented the blood flow to the muscle cells when exercising. In addition to this, the detail varied from general statements, for example, the muscle cells use less oxygen in Fig. 3 when the person is resting whereas they use more oxygen when the person is exercising as in Fig. 4. Some candidates backed these statements up with the oxygen concentration figures given, for example, when resting there is 19ml/100ml of oxygen going into the muscle cells and 13ml/100ml of oxygen coming out of the muscle cells. When exercising there is 19ml/100ml of oxygen going into the muscle cells and 2ml/100ml of oxygen coming out of the muscle cells. The best answers explained that when resting the muscle cells only use 6ml of the 19ml/100ml available whereas when exercising the muscle cells use 17ml of the 19ml/100ml available.

Some candidates incorrectly interpreted Fig. 3 as representing the person exercising as they perceived 13ml of oxygen concentration was used by the muscle cell and in Fig. 4 they perceived that the person was at rest as only 2ml of the oxygen concentration was used.

- Q15** Most candidates were able to achieve three to four marks. The answers ranged from a few words to comprehensive explanations.

- Q16** Most candidates were able to select aerobic energy production and muscular endurance as two of the components that should definitely have been included in the person’s training programme. Explanations as to why these components should have been included in the training programme were mostly competent to highly competent.

The candidates who achieved top marks selected flexibility as their third component and their explanations for its inclusion were generally competent to highly competent.

Candidates who did not select flexibility as the third component mostly chose muscular speed. The explanation for selecting this component was usually to do with being able to have a fast start and a fast finish.

Candidates nearly always named continuous steady pace training (CSP) as the appropriate method of training for aerobic energy production; circuit training was mostly named as the appropriate method of training for muscular endurance, however, some candidates chose continuous steady pace training (CSP). This was not accepted as a specific training method for muscular endurance. The use of static flexibility exercises was most often named as an appropriate method of training for flexibility.

A few candidates mistakenly chose principles of training rather than components of physical fitness to answer this question. They explained why the principles of training should have been included in the person's training programme.

Q17 This question proved to be the most challenging question for all candidates.

(a)& The strongest candidates successfully explained advantages or disadvantages in choosing circuit training (without the use of weights) to develop muscular fitness as opposed to choosing training with fixed weight machines and free weights. These candidates, in answering, were aware of the 'as opposed to' in the question and addressed it in their answers. They explained an advantage or a disadvantage of circuit training then explained how this was not the case with training with fixed weight machines and free weights. For example, circuit training without weights can be done anywhere whereas weight training using fixed weight machines needs to take place in a special area. The strongest candidates, however, did not always apply this principle to all of the answers they provided.

In addition to the above, there were many other variations in the candidates' answers to this question.

In Part (a), some candidates mentioned a disadvantage of weight training using fixed weight training machines then explained how this was not the case with circuit training. In Part (b), these candidates gave an advantage of weight training using fixed weight training machines and explained how this was not the case with circuit training. This approach was most often seen in Part (b). For example, with fixed weight machines and free weights you can provide the necessary weight to develop muscular power whereas with circuit training without the use of weights, it would be very difficult or impossible to develop muscular power. Although the candidates swapped things around, their answers were usually acceptable.

Many candidates gave advantages of circuit training in Part (a) and disadvantages of circuit training in Part (b) without making any comparison with using fixed weight training machines or free weights. Even though the candidates did not make the comparison with the use of fixed weight machines and free weights, it was sometimes possible to understand the assumption being made and these advantages and disadvantages were worthy of credit. For example, an advantage of circuit training is that it can be used with people who are under sixteen. The assumption (though not included) is that people who are under sixteen should not be using heavy weights as they are still growing.

Because of the comparison required between circuit training and fixed weight training to answer this question, weaker candidates had most difficulty with this higher-level skill.

Q18 This question differentiated between the range of abilities of the candidates.

Weaker candidates often explained the principles of training rather than explaining how the principles should be applied to take a person from a state of inactivity and unfitness to being active and in a state of good physical health.

Again weaker candidates often explained what they needed to do, but did not explain what they would do and how they would do it. For example, 'I need to make sure that I apply the principle of overload in my training programme. It is important to apply the principle of progressive overload in the training programme to build-up the person's fitness levels'.

The principle of specificity was the principle of training that differentiated most between the candidates. Many candidates limited their selection of the components of physical fitness, for the person and their circumstances, to aerobic energy production. The candidates often, did not explain why this component should be included in the exercise programme. The candidates usually suggests a suitable type or types of aerobic activity for the person to do. Better candidates chose the three components of aerobic energy production, muscular endurance and flexibility and many of them explained why these three should be included in the exercise programme for the person and their circumstances. These candidates usually provided a suitable type of exercise for at least one of the three components of physical fitness, if not all three.

Candidates were not penalised if they did not explain how they should apply the principles of overload, progressive overload and rest/recovery to all three of the components of physical fitness. It was sufficient for candidates to explain how these principles of training should be applied to any one of the appropriate components of physical fitness.

Because the person was in a state of inactivity and unfitness, nearly all candidates who specified exercise that the person should do with a reasonable intensity, time and frequency demonstrated the application of the principle of overload.

Some candidates mentioned that the 'FIT' principle should be used to apply the principle of progressive overload, but did not explain how they would do this. Some limited their explanations to the person should, "work harder or work longer." Most candidates who applied the principle explained how they would do it and gave examples. Most of these candidates applied the principle appropriately to aerobic energy production. A few candidates explained how they would apply the principle of progressive overload to each of the components of aerobic energy production, muscular endurance and flexibility.

Weaker candidates explained that rest/recovery days (with no exercise) were necessary for the person. Better candidates differentiated between having more rest/recovery at the beginning and then gradually decreasing them as the exercise programme progressed. Many of these candidates also mentioned that well into the exercise programme, rest/recovery days can be exercise sessions at low intensities.

A few candidates unnecessarily went beyond explaining the principles of training and provided guidance on nutrition for the person.

Principal Moderator's Report

During the Summer 2014 moderation period, a team of 29 moderators conducted assessments of 1832 candidates in 92 centres.

In most centres understanding and application of the specification was sound. It reflected a professional approach from teachers in their interpretation of the specification and their adoption of the required procedures in preparing candidates for external moderation. Where centres had attended Agreement Trials the moderating team found that the interpretation of Component 2 and Component 3 was made easier and teachers commented positively on the support they had received at trials to meet the specification requirements.

Preparation at Centres

All centres were given opportunity to clarify the administrative and practical requirements for moderation with the assigned moderator by phone or email prior to the visit. Teachers should use this opportunity to clarify any queries they may have about the process. Detailed instructions can be found in the publication "Instructions to Teachers" which is available online from www.ccea.org.uk/physical_education.

The following paperwork is required on the day:

- Candidate Record Sheets Component 2 (two copies signed by teacher and candidate);
- Candidate Record Sheets Component 3a & 3b (two copies signed by teacher and candidate);
- OMR/TAC1 (Mark Sheet);
- TAC2 (Internal Standardisation Form);
- Copies of Non Centre Controlled Activity form as previously submitted to CCEA;
- A4 page for each of the 3 components listed in rank order; and
- Component 2 samples as requested by CCEA.

Moderators will arrange with the teacher for at least two activities to be seen in Component 3(b). It is desirable that the activity selected is common to a majority of the candidature. The moderator will also request a range of candidates to be available for Component 3(a).

The majority of centres in 2014 demonstrated thorough preparation and accurate administration. Teachers should note that inaccuracies in the administration can unnecessarily prolong the process or in some instances cause the moderation to be postponed. Centres should note a full day is required to complete the moderation process. Good practice involves centres agreeing a timetable with their assigned moderator.

Post Moderation

All teachers should be fully conversant with the CCEA requirements for the activities their candidates select. They must visit the CCEA GCSE PE microsite www.ccea.org.uk/physical_education to familiarise themselves and their candidates with the specification and all associated support material.

The following changes have been overlooked by some centres which can greatly disadvantage the candidate:

- candidates must choose activities from at least two of the categories listed in the specification;
- at least two of the activities must be centre controlled and carried out under the direct supervision of the teacher;
- candidates may choose to be a Performer and a Leader/Official in the same sport; and
- Component 3(a) requires the analysis of a skill, not the coaching of it. Appropriate technical language is expected from candidates accessing the higher mark bands.

Component 2 requires teachers to complete the Candidate Record Sheet and to also add annotation within the text of the work.

The following protocols affecting moderation are also worth noting:

- Staff must observe and provide a range and a mark for performances at moderation prior to the moderator informing the centre staff of their assessment.
- Candidates must have consistently demonstrated their ability in an activity to access the higher mark bands
- Overall, centres are to be commended on their continuing drive and encouragement of candidates to achieve highly. CCEA is committed to providing an informed and enjoyable GCSE PE specification with accessible and effective support structures available for centres.

Component 2 Developing & Maintaining a Balanced, Healthy Lifestyle

Most centres presented very detailed evidence to support the marks awarded in Component 2 with some candidates demonstrating highly competent and consistent learning when applying the process to lead a balanced healthy lifestyle. The quality and variety of evidence has improved year on year. However, teachers have expressed concern over the perceived substantial workload required in this component by teachers and pupils alike and feel it is disproportionate to the marks awarded. It is planned to address this concern in the forthcoming Agreement Trial.

Attention is drawn to the following areas of concern, which reoccur each year in Component 2:

- Candidates focus on exercise and ignore the other elements of a healthy lifestyle namely diet, work rest and sleep.
- Some centres were still completing a twelve-week plan where an eight-week plan is the specification requirement.
- Most centres use the template issued by CCEA but it should be understood that this support material is not a compulsory format and teachers should remember that other formats on offer may prove more suitable for the learning style of their own individual candidates e.g. the oral presentation or DVD.

- Some samples were poorly annotated or not annotated within the written text. It is important that the teacher not only completes the candidate record sheets but highlights good application of knowledge or positive achievement within the text. It can also be used to provide details of any assistance given beyond that of the teaching group as a whole or where a candidate has worked independently. Any work, which has not been adequately annotated, may be referred to the centre for further annotation. This may delay the moderation process.
- There was evidence of a “cut and paste” approach from weaker candidates with little evidence of a “real life” personal experience. Teachers are reminded to reference the assessment criteria closely i.e. “The evidence shows clearly and consistently that the candidate has a balanced, healthy lifestyle”.

In summary, teachers are reminded that this Component has three main elements, testing a candidates ability to:

- audit and critically analyse their own lifestyle;
- explain observed evidence of strengths and areas for improvement and to identify the PRIORITY areas for action; and
- use appropriate principles and methods to set up safe, effective, short-term action plans to develop and maintain a balanced healthy lifestyle.

Component 3 Individual Performance in Physical Activities

(a) Analysing, evaluating, planning, implementing and monitoring actions to improve skilled performance in selected physical activities

The majority of centres had prepared their candidates well for this component. Many centres had used the structure of the new support material on the microsite showing the component applied in the skill of archery. Attention is drawn to the following areas of concern which reoccur each year in Component 3(a).

Some centres present this component as a group coaching session. Best practice should be a one to one session, demonstrating how to improve a chosen skill. Some centres chose a simple skill to demonstrate to an experienced practitioner – this proves an artificial and extremely difficult task for the candidate to “spot and fix”. Best practice should be a basic skill demonstrated to a complete beginner or an advanced skill demonstrated to a fairly experienced practitioner; e.g. a forward roll in gymnastics for a beginner and a handstand forward roll for a gymnast with experience of taking weight on hands.

Best practice in this component includes a good description and demonstration of the “full marks model” (or use of visual aids/video). The candidate then leads the performer through the stages of performing the skill. The candidate identifies flaws in the performance and suggests ways to practice and improve the skill i.e. “spot and fix”. The moderator may need to ask the candidate to clarify their actions or discuss their observations. It is suggested that in conclusion the candidate could summarise how the performer has got on and suggest how they might progress or what further practice of the skill is needed.

(b) Improving the quality, efficiency and effectiveness of individual performances in physical activities

Component 3(b) was delivered competently and confidently by the majority of schools. Some centres choose common activities for a whole teaching group while others allowed individual candidates to make their own choices. Both methods are acceptable provided the activities are chosen from at least two categories.

Adjustments to the fitness assessment have been met with enthusiasm from teachers and pupils alike. It is important to note that where good practice was evidenced:

- The candidates performed to the recorded scores and in many instances exceeded it. Where candidates under-perform in fitness, marks will be adjusted accordingly.
- The candidates set up the equipment and measured each others scores under the observation of the moderator. This is the best way to demonstrate their knowledge of the test protocol which is a requirement of the specification.
- The candidates are required to perform only their three strongest areas of fitness.

It is important for teachers assessing this component to note that candidates' standard of performance is not the only element assessed. Candidates must also demonstrate strategic and tactical play, an appropriate range of skills, appropriate levels of fitness, knowledge of rules and conventions and suitable attitudes and behaviours associated with fair play and success.

Teachers are reminded that candidates in this component may also be assessed as leader/official. This option is not popular at present and yet it must surely give opportunity for the weaker performer to study a sport from a different perspective.

Contact details

The following information provides contact details for key staff members:

- Specification Support Officer: Arlene Ashfield
(telephone: (028) 9026 1200, extension 2291, email: aashfield@ccea.org.uk)
- Officer with Subject Responsibility: Peter Davidson
(telephone: (028) 9026 1200, extension 2993, email: pdavidson@ccea.org.uk)