



Pearson

# INSIDE TRACK

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**Rapid development  
of *new technologies***

What can be learned from the first  
series of examinations in 2017

Get to grips *with the Performance  
Development Plan*

**Priming exercise,  
*a new topic for the 2016 specification***



## Welcome to the first edition of INSIDE TRACK,

A new online magazine designed to support the teaching of Pearson GCE PE; specifically, for the 2016 specification.

The termly magazine will provide information to support centres in their delivery of the course with articles written by senior examiners and moderators and guest writers, together with information about issues such as the latest sports technology and initiatives for identifying and developing talent.

There will also be book and website reviews for resources that might be helpful for teaching or background reading.

## Meet the team

The team of senior examiners and moderators detailed below is responsible for the production of examination papers, mark schemes, providing end-of-series reports to the centres and establishing standards for the assessment of all aspects of non-examined assessment (NEA). Additionally, each member of the team will contribute regularly to INSIDE TRACK which is edited by Dennis Tattoo and formatted and distributed by Penny Lewis.

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## Feedback from 2017 examination series

The senior examiners offer the following summaries of what can be learned from the first series of examinations in 2017. Copies of the full reports are available from the [Pearson website](#).

### 8PE01

In catering for a wide ability range there were clearly outstanding candidates offering high quality answers, whilst other candidates struggled with the demands of the paper. Amongst the key areas for helping candidates get to grips with the new content, centres should be aware that a number of candidates lost marks because key definitions had not been learnt. Centres need to be mindful that there are a number of terms from the old specification that are no longer relevant. For example, cardiovascular endurance is not included as a component of fitness, whereas VO2 max, anaerobic capacity and exercise economy have all been added. Not all of this new terminology seems to be understood by candidates. Other new examples of content include the competition and transition phases within periodisation and assisted training. Topic Guides which provide helpful advice are available from the [website](#).



### 8PE02

This summer's first AS paper was completed with many well written and knowledgeable answers. The following advice will be useful for centres in supporting future candidates not only sitting the AS paper but also the GCE paper in 2018. Accordingly, candidates need to:

- Ensure all key terms are learned for their correct meaning and spelling.
- Understand the exact requirements of the command words e.g. name or explain.
- Ensure that questions requiring sporting examples must have examples to score marks from a range of sports
- Ensure for all extended answers, levels based questions, candidates form a plan and always write an introduction and conclusion.
- Break down extended answers into distinct paragraphs each covering a single point supported where appropriate with an example e.g. date, place, person or event.
- Not guess facts!
- Think chronologically If asked to use data from a table - starting with the earliest date and working towards the present day.



### 8PE03

Moderators at live moderation days commented on well organised events with motivated candidates who were determined to do well, and centres providing high quality practical sessions. Most candidates offered the performer role. Centres are reminded that candidates may choose to be assessed as a coach; this may be more suitable for some. Some centres opted to video the practical work so that it could be offered as evidence should the centre request a review of marks post moderation

Few candidates were awarded maximum marks with most awarded in mark bands two and three. Moderators reported accurate marking overall, although in a few cases the very best candidates were slightly under-marked. Moderators reported that for certain sports, such as rugby, it proved difficult to observe performances in a full game setting because of a lack of numbers. In these circumstances centres should provide video evidence to support this element of the assessment. Advice and guidelines about how best to record this aspect of the submission may be found in the specification and through training opportunities provided by Pearson.



### 8PE04

Most candidates produced work within the Level 3 (7-9 band) for both the physiological and the technical / tactical aspects of the coursework.

As with the practical performance, almost all candidates completed this task as a performer with few opting for the coach role. A number of candidates did not write succinctly and exceeded the word count. Some work lacked the necessary depth of analysis to achieve top band (10-12) marks. Much of the work was well presented, demonstrated a good knowledge and understanding of the tasks and included a bibliography to indicate a level of research. Centres had clearly supported the candidates well in this first year. To achieve top band marks candidates must write more succinctly and should be referring to up to date, appropriate and relevant testing.



## Priming exercise

### Phil Hayes, Chair of Examiners

Chair of Examiners Phil Hayes introduces Priming Exercise, a new topic for the 2016 specification. And as you will see below, the concept is straight forward but it is not an easy topic on which to find information.

#### What is priming exercise?

Priming exercise is a way of manipulating a warm-up to speed up how quickly the aerobic system starts at the onset of exercise. Essentially, it is manipulating the intensity of the 'pulse raiser' element of the warm-up.

#### What do you do?

Physiologists refer to the speed at which the aerobic system increases at the start of exercise as the O<sub>2</sub> uptake kinetics.

Priming exercise is a method of increasing the rate of O<sub>2</sub> kinetics (the time it takes for oxygen delivery to respond to the demands of exercise). There are three factors that are important in priming exercise: the intensity of the priming exercise, the intensity of the performance, and the gap between the end of the priming exercise and the start of the performance.

There is some debate about the optimum intensity, however it is higher than most people might imagine. Research showing positive benefits from priming has generally shown priming exercise just below or just above the maximum steady state to be beneficial, provided there is a long enough gap.

#### Where can you find out more?

A simple Google search offers little, unless you use term oxygen uptake kinetics. This however reveals a lot of highly technical research papers. In the near future, we will provide a more comprehensive document on the Pearson website.

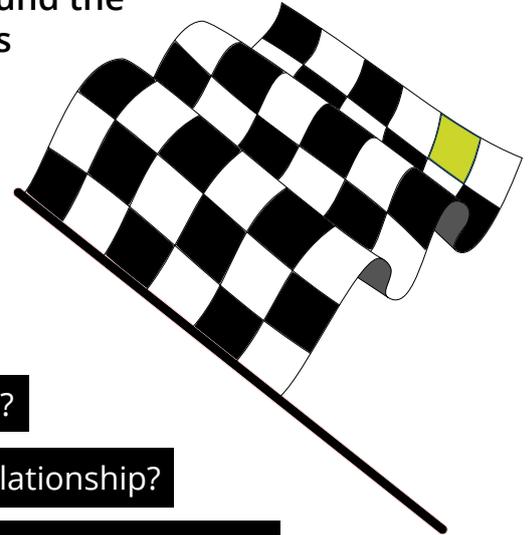
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# The emergence of competing for corporations rather than geographically-based teams

Principal Examiner Colin Maskery outlines key issues around the growing trend for teams to be based around corporations as well traditionally geographically established teams.

This topic enables students to gain knowledge of an aspect of global sport that has changed significantly in recent years. When we think of corporations with worldwide profiles, attention turns to sports which require huge amounts of financial investment with global appeal.



**Key areas are:**

Why corporations promote and associate with a sport?

What are the advantages and disadvantages of this relationship?

Why do spectators align themselves with corporations and their teams?

The topic allows candidates to draw from the current status and profile in Formula 1 Grand Prix and cycling teams highlighted by the Tour de France. The rise in the global status of the 'F.A Premier League' with the associated sponsorship and TV revenue has seen the development of FA, and in other sports, being owned as part of a wider portfolio of business interests. Premier League football has seen a significant rise in the ownership of clubs by non-UK based individuals. In Formula 1 technical developments developed through racing filter down to the commercial products thus selling their brands to the open commercial market. Cycling teams seek sponsorship and link team success to the product and the corporation name – the perfect example is Sky.

However, corporations investing in and influencing sports is a 'two-edged sword'.

CM

## Advantages

- Investment is often higher than would otherwise be possible.
- Teams can recruit top performers irrespective of nationality which raises standards.
- Companies use TV to advertise their goods and/or services and increase profitability.
- Corporations support sports that enhances their image.
- Companies have a direct manufacturing bias to enhance their products – *Ferrari/Renault*.
- Supporters do not have to be born in a distinct geographical area to follow any given team; this allows supporters from areas with limited sporting profiles to follow any (successful) team.
- If a performer moves teams so can the supporters e.g. *Lewis Hamilton*.
- Events that take place globally attract a wider audience.
- Tours allow football and rugby to brand their name and achieve increased revenues
- Sponsorship can come from any corporation with no national ties although elements of nationalism still exist.
- Supporters can associate with image and success rather than a geographical connection.

## Disdvantages

- Richest corporations can dominate at the expense of emerging teams.
- Funding can be withdrawn, budgets cut and this leave teams in financial difficulties; Corporations can dictate to teams with the threat of the withdrawal of funding.
- Teams have no national identity to bind them together.
- Conflict of interests can occur when a performer is one nationality and the company another.
- A lack of affinity can develop if a local/national based corporation from one country employs performers from another.
- Supporters may feel both the corporations and the performers act out of financial interests only and have no 'community' involvement.
- Fans can lack the passion seen when supporting their club/national team.
- Sports such as *Tour cycling* and *Formula 1* can place individual success first rather than the team.

## Ensuring Stretch and Challenge on Moderation Days



➤ *Using hockey as an example*, Principal Moderator Dane Smith suggests how to ensure sufficiently demanding drills on the moderation day.

The purpose of the practical moderation is to ensure that centres have a good understanding of the practical assessment criteria and how this is applied. The majority of centres conduct very effective moderation sessions, although there are times when centres rely on too many static drills, which can make it difficult to justify marks, especially if mid-top band marks have been awarded.

Centres should include drills & practises that demonstrate the candidates' ability through the application of the relevant skills/techniques in conditioned practices (not static) and in a formal/competitive situation(s) in order to give the candidates the best opportunity to justify the marks that have been submitted.

Below is an example of a hockey practical moderation session. There is an extensive list of drills that could be used and by no means is this a definitive session; however the main point is that the drills are dynamic that allow candidates to not only demonstrate their level of skill and technique, but also the ability to time passes & runs; the ability to perform under pressure and make decisions; improvise skills (if required) and demonstrate their overall execution.

### Drill 1: Passing Patterns

- In this you set out 2 colours of cones.
- Player 1 after having passed the ball will run to the red cones and player 2 will run from blue to blue.
- Players receiving the ball should show where they want to receive it by offering their stick.
- Appropriate power in the pass and accurate timing is essential

**Progression** - The last player to receive the ball would need to play 1-1 with a defender before attempting to shoot for goal (teacher/assessor may want to limit the touches or playing area).

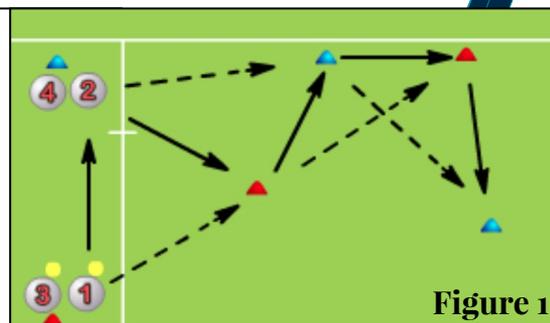


Figure 1

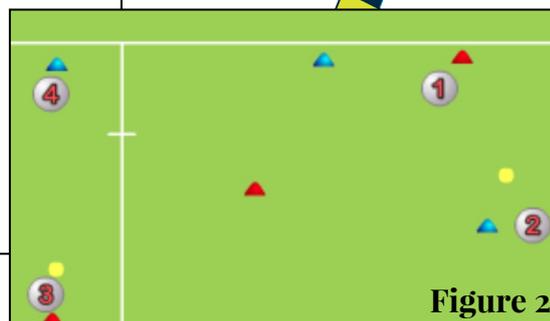


Figure 2

### Drill 2: Possession Drill

- Players are trying to keep possession of the ball for as long as possible.
- Players inside the area can use the two players on the outside of the grid to help them keep the ball.
- Players can only win the ball inside the area.

**Progression** - Outside players limited to two/one touches to keep the game fast flowing.

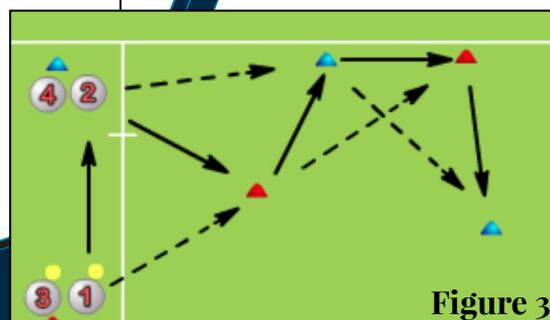
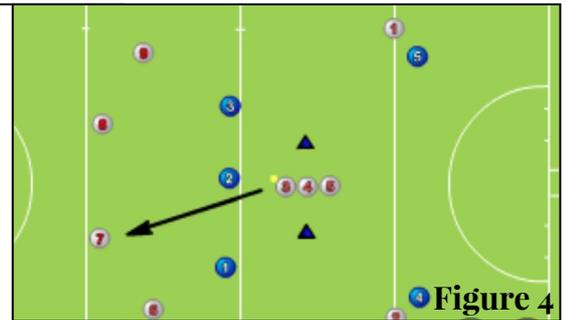


Figure 3

## Drill 3: Attacking Down The Wing

- One of the players on the half way line passes the ball back to the two central defenders
- The midfielder may then make himself or herself available.
- The aim is to try and score a goal but try to attack round the outside
- Quick and accurate ball movement is required, especially at the back initially in order to get the ball on the outside
- The two attackers are being man to man marked.
- Defenders are not allowed out of the half.

**Progression** - An attacking player could move into the other half leaving the back 3 playing against 3 defending forwards. Defenders should become more active as the drill progresses.



## Bibliography

DS Figure 1 & 2 • Figure 3  
Figure 4 & 5

## Drill 4: Full sided competitive game

# Tackling essay answers

*Ellie Bunston, Principal Examiner for Component 1, offers advice on how to tackle extended answers*

There are different types of extended response questions. These are marked by levelling candidates into a grid rather than simply by indicative content. In other words, there is not a mark for each element of content written, but by a 'best-fit' into a band based on quality and style of writing and depth of analysis.

The specification shows there are certain command words that can be used for levels based questions. For example, compare, discuss, evaluate, analyse are examples of command words for the 12 mark extended responses at AS level and 15 mark at A Level.

Each command word requires a different type of answer. For example, if a comparison is required the candidate is required to explore similarities and differences whereas an analysis questions means there is need for analysis and judgement. It is important that centres teach candidates how to approach the different styles of response. Assess, examine and justify are also command words that can be used for the shorter extended responses which score eight marks. These type of answers make up a significant proportion of the examination paper and require thorough preparation.

Improving the quality of extended answers might be aided by:

- Underlining key words, including the command word, to help ensure correct focus of response
- A brief plan
- Self and peer marking of assignments using the mark scheme
- Reviewing a range of answers of different quality work to ensure candidates appreciate the characteristics of top band answers
- Opportunities to read high quality work so as to really appreciate what a very good piece of writing actually looks like
- Lots of timed essay practice



*Please note they do not get marks for their planning but it will ensure their response is structured.*

## Planning the performance development plan



➤ *Chief Examiner Dennis Tatoo offers advice on how to get to grips with the Performance Development Plan*

The Performance Development Plan (PDP) builds on the Analysis of Performance work. The work is assessed internally by the centre and then externally moderated by Pearson.

The PDP requires the candidate, in the role of performer or coach, to analyse, implement and evaluate a plan for enhance performance.

The starting point of the plan is for the candidate to ensure an **appropriate area of performance is identified**. This would be based on the accurate interpretation of the data and identification of future priorities for training identified as part of the analysis work.

The candidate needs to **describe how SMARTER targets can be applied** to the plan. Simply describing what SMARTER targets are will not score well; candidates must demonstrate their understanding of how successful target setting can underpin a development plan by, for example, suggesting the benefits of a specific training programme which is geared to the needs of the identified priorities.

**Principles and methods of training need to be clearly identified and applied successfully.** If reference is made to Rest and Recovery for example, the candidate needs to be able to apply the science of rest and recovery to performance enhancement and not merely state that it is helpful. Appropriate methods of training need to be identified and deployed together with sufficient depth to explain, for example, in resistance training the choice of exercises, weights, number of repetition and sets together with most appropriate lift speed.

**The candidate needs to select accurate and effective tests to monitor progress.** One weakness of the Analysis of Performance work submitted last summer was the lack of research into contemporary testing that had been developed in recent years. The range of field fitness testing and protocols has developed since the 1960s when Dr Cooper devised the 12-minute run. Contemporary tests have been devised to enhance validity and reliability for all fitness components.

The **review and evaluation** needs to demonstrate an accurate evaluation of the data provided together with a thoughtful analysis of the changes in test scores. The recommendations for future developments need to be based on correct interpretations of the outcomes of the work. The word count for the analysis work and PDP is 3,500 and therefore candidates must write succinctly to cover all aspects of the work. The word count does not include graphs, charts, tables, diagrams, (brief) quotes or the bibliography.



Reliable data is necessary for accurate interpretation and identifying future priorities.

## Trending technology

Keeping up to date with the rapid development of new technologies is a challenge for teachers and candidates. Detailed below are a few recent advancements in how technology is continuing to aid performance improvement.

### Wink Bar

Cycling is a sport steeped in technology with cyclists of all levels benefitting from advances in technology. The Wink Bar is a smart and connected handlebar that you can control from your smartphone. The bar offers GPS-assisted navigation, geo-positioning of your bike together with powerful built-in headlights. It can be installed on any bike and revolutionises any training ride or even a daily commute!



WINK handlebars offers helpful feedback about speed, distance and acceleration by using geo-positioning and GPS navigation



PIVOT technology uses AI to help refine key movements in real time

TuringSense is developing a range of pioneering wearables, using artificial intelligence under the PIVOT brand, which will be able to track the full range of a user's body movement. Performers and coaches will be able to execute movements such as a tennis serve or golf swing and then receive real-time recommendations on improving and refining the quality of movement.

### PIVOT body movement tracker

### Isotonic Energy Gels

Sport nutrition has been well documented as a vital tool to support any athlete's training and competition programme. It is argued by some as being the single most complementary factor to any physically active individual or elite athlete.

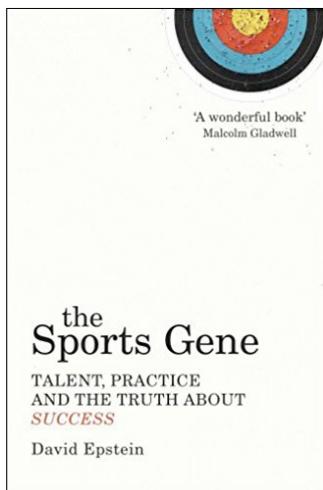
Isotonic energy gels have already been mixed to the correct water / electrolyte balance which means that no extra water is needed. These gels provide energy and aid optimal hydration. From a convenience point of view, they save having to carry both gels and water. They are great for training runs for simultaneously topping up both water and energy levels.



Triathletes sometimes utilise transition sections of races to take on energy gels.

## Book and website reviews

### The Sports Gene: Talent, practice and the truth about success by David Epstein (2013)



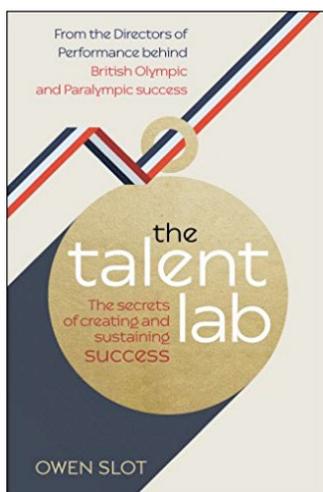
Epstein presents arguments on the importance of genetics in fields such as baseball, basketball and athletics. He examines the importance of sports vision and identifying cues to enable performers to respond quicker than the time it takes the human body to react. Using data and anecdotes from baseball and softball and with reference to athletes as diverse as Alex Rodriguez, Jenny Finch and Mohammed Ali, Epstein provides a sound argument to support the value of genes over practice. He questions the 10,000 hours or ten years of practice rule and raises the necessity of genetic adaptation to training for both aerobic endurance and strength.

He goes on to examine the emergence of a wide range of sporting body types, each suitable to different activities. You will discover how and why Hitcham El Geurrouj and Michael Phelps wear the same length trousers and be offered a potential reason for Paula Radcliffe's lack of success in marathons in hot conditions. You will read about warrior slaves in Jamaica, distance running tribes in Africa and the benefits of living in a malaria infested area.

The greatest quality of this book is that it makes the reader think and it allows minds to be challenged in preparation for extended writing in the exam. As an aid to learning, this is an excellent book as it challenges existing beliefs and gives students that vital alternative perspective.

AA

### The Talent Lab by Owen Slot



Times journalist Owen Slot seeks to provide an insight into the systems developed in recent years in the UK to identify and nurture sports talent in the UK. The writing is supported by the views of Chelsea Warr and Simon Timson who were the Performance Directors at UK Sport responsible for building on the successes of 2012 at Rio.

Slot outlines lessons learned from other cultures, the importance of parenting, the neuroscience of brains and delves into research into the drive of the super-elite when compared to (just mere) elite athletes. Chapters are concluded with summaries from Warr and Timson and the book provides a helpful overview of recent developments in performance enhancement.

Although not essential reading for the specification, the book is readable and accessible and provides teachers and students with very useful background detail ahead of the course or, indeed, alongside it.

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## Clearing House For Sport - Australia www.clearinghouseforsport.gov.au



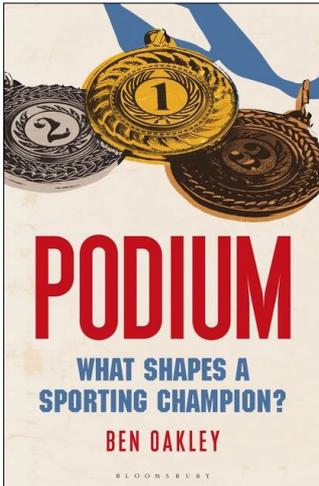
This Australian Sports Commission based website provides a range of resources and information for teachers and students.

Although there is, naturally, a focus on Australian domestic sport, the website is user-friendly and allows visitors access to recent research in a number of areas. Examples include summaries of the research and innovation of the AIS, latest news on technology and articles of interest. For people passionate about sport and developing a working knowledge of contemporary issues this is a real find.

The site also has a large number of convenient links to other sites of interest, including the Australian Institute of Sport. Helped by Key Messages summaries, this is an ideal site for background information relating to the systems of talent identification and development in Australia (Topic 5.6.2).

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## Podium by Ben Oakley



Published in 2014, Ben Oakley, an elite windsurfer who has also coached at the Olympic Games, summarises research and information gleaned from biographies on elite athletes to offer an interesting insight into what it takes to achieve success in sport. Like The Talent Lab the book offers helpful support material which underpins much of the A Level course. There is sufficient depth and breadth on physiological, psychological and sociological aspects to offer teachers and students worthwhile support material to underpin or extend interest in the course.

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## Get in touch

It is hoped that INSIDE TRACK will be a viable and worthwhile resource for centres delivering the Pearson specification. If you have particular requests for how the magazine can support you, or wish to contribute, then please do contact the editor at [insidetrackpearson@hotmail.com](mailto:insidetrackpearson@hotmail.com).

## Support materials

Topic guides, which provide additional detail about the content requirements of the specification, sample assessment materials, coursework examples and other useful resources to support the delivery of the course are available [here](#).

This is new online magazine designed to support the teaching of Pearson GCE PE; specifically, for the 2016 specification.

If you would like to participate, please get in touch with the editorial team at [insidetrackpearson@hotmail.com](mailto:insidetrackpearson@hotmail.com) or [teachingpeandsport@pearson.com](mailto:teachingpeandsport@pearson.com).

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