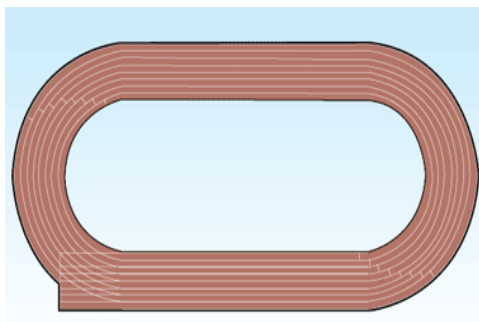


INSIDE



TRACK

September 2021

Welcome to the tenth edition of **INSIDE TRACK**, the online magazine designed to support the teaching of Pearson GCE PE.

The magazine provides articles written by senior examiners and, on occasions, guest writers, together with reviews of resources that may be helpful for teaching or background reading.

As the country adjusts to life in the aftermath of the Covid-19 vaccination programme and schools begin a new school year with renewed optimism about fewer interruptions to learning and teaching, everyone associated with Inside Track would like to take this opportunity of wishing readers an enjoyable and successful year.

In this edition, senior examiner Andrew Armitstead focuses on Thorndyke's learning theory and there are articles linked to the non-examined assessments in the hope these components will feature as an integral part of the grading next summer.

Contents:

- *Thorndyke's Three Laws of Learning*
- *Showcasing the candidates' ability during Practical Assessments*
- *Getting to grips with a coach-based PDP*
- *Resources reviews*

Other Pearson resources for GCE PE

A wide range of materials, including previous editions of Inside Track, that support the learning and teaching of GCE PE, can be found on the Pearson website.

[Edexcel AS and A level Physical Education \(2016\) | Pearson qualifications](#)

Get in touch

It is hoped that INSIDE TRACK will be a helpful resource for centres delivering the Pearson specification. If you have particular requests for how the magazine can support you, or you wish to contribute, please contact the editor (Dennis Tattoo) at:

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World Records at Tokyo Olympic Games prompt further debate about technology and performances

At the closing ceremony the President of the International Olympic Committee (IOC), Thomas Bach, concluded that the postponed 2020 Tokyo Games had been a huge success and in a world impacted by the Covid-19 pandemic had offered hope to the entire globe.

Everyone will have personal views on the biggest stories to emerge from the games. One of the ongoing issues debated is the impact of technology, a key topic in component five of the A Level specification.

Records on the track and road have tumbled in recent months with the emergence of super-light shoes that contain a rigid carbon plate and soft, resilient foam that allow athletes to help to enhance previous performances. This prompts debates amongst athletes and sport scientists. Karsten Warholm, winner of the 400 metres hurdles in a new world record time in Tokyo, was one of the athletes to raise concerns about the thick soled shoes being worn by some of the sprinters. Such shoes he argues 'takes credibility away from our sport'. Usain Bolt was another to express concern about some the gains made by some sprinters wearing 'super shoes'.

Students might like to consider where they stand on technology such as 'super shoes'. 'Mechanical doping' say some; the 'natural advances of technology' that athletes benefit from say others. What about you?

Showcasing the candidates' ability during the Practical Assessments

Senior Moderator Dane Smith offers advice on how practical performances can be best demonstrated during the assessment for component three.

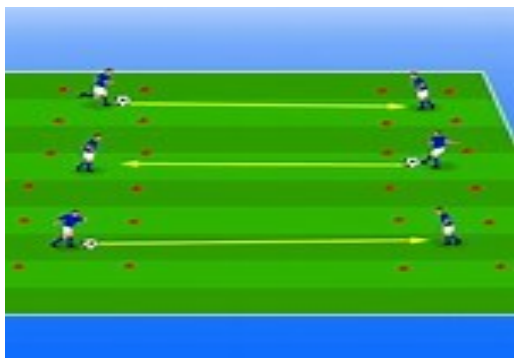
Some readers may recall from the first edition of Inside Track that I wrote an article outlining possible options available to ensure enough challenge during moderation days. The vast majority of practical assessments have demonstrated the centre's ability to provide enough challenge, and this was also detailed in the most recent (2019) Principal Moderator's Report, that stated:

The quality of performances ranged from being good to outstanding including a number of elite performers. Moderators reported that much of the marking was accurate and in line with national standards, although some work had been marked leniently or, in a few cases, severely.

This reflects the tremendous effort staff and students contribute to their work throughout the year. However, in some cases the practical assessments are marked leniently, and, on some occasions, this is due to the absence of sufficient evidence.

Page 29 of the specification states that candidates *are required to demonstrate their skills while under pressure, in conditioned practice and a formal/competitive situation.*

For example, the inclusion of a warm-up or static drills maybe beneficial for the candidates prior to their assessment but should not form part of the actual assessment. A common practice in many football assessments is a static passing practice with a partner, often including some form of control with passes being alternated between ground, lofted and the use of both feet. This may be appropriate for band 1 performers but the majority of marks are awarded in band 3-5; more challenge is required.



Static drills do not offer sufficient challenge for the majority of candidates

The possession practice below allows a vast array of football skills to be demonstrated in a conditioned practice. It starts with one team in possession of the ball trying to play the ball from GK to GK with the help of the *Floaters* (outside players in yellow) if required. Not only are essential skills included, but candidates need to increase movement off the ball and demonstrate the use of communication to enhance influence on the game, which, in a full-sided match, can be difficult to evidence.



Another major sport where evidence may not demonstrate the candidate's full ability is in netball. This is especially true if candidates have specialist roles in attack or defence.

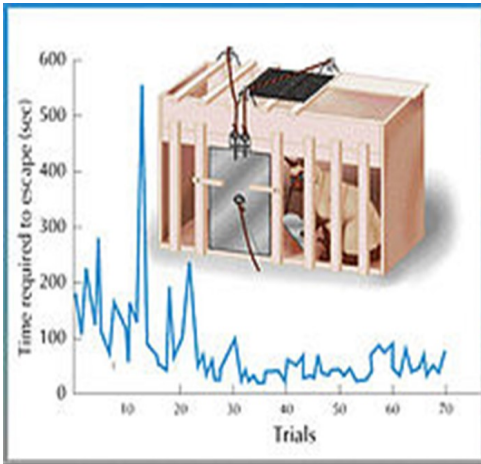
Centres could consider breaking the game into units and conduct unit conditioned practices.

The image below utilises the Centre in facilitating the GA and GS. Players must outwit their opponents and use their evasion, passing, movement and ultimately shooting skills in a game scenario. Likewise, the defensive players need to communicate and work together to shut the GA and GS down.



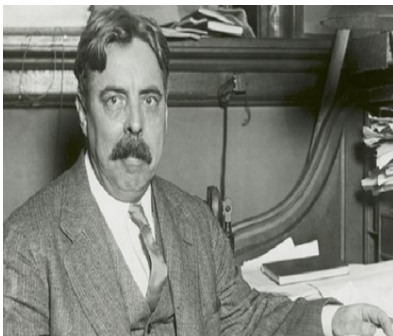
Thorndike's Laws in detail

Senior Examiner Andrew Armitstead provides a summary of Thorndike's Laws, an important subject in the Skill Acquisition topic (3.3).



These laws are based on animal psychology at the end of the 19th century and start of the 20th century.

Edward Thorndike, below, (1874-1949) was an advocate of connectionism, a learning theory that examines how bonds are formed and strengthened between stimuli and responses.



The law of readiness

Simply put, the performer must be ready to learn. If they are not ready, then learning will either not take place or it will be deficient despite the skill of the coach. Thorndike originally referred this to mental alertness and the need for students to be stimulated and engaged. If the principle of readiness is ignored then time is wasted trying to educate unfocused performers.

Latterly, the law has incorporated the concept of physical readiness whereby the performer must be physically ready or prepared to undertake the task allotted to him/her.

The law of exercise

Thorndike described this as the laws of use and disuse. This law is about making connections between a situation or stimulus and the response.

In other words, we are more likely to repeat the pleasant and successful responses and to modify the responses which elicit displeasure and failure.

Repeating an action leads to ease of performance and familiarity, thus enhancing the mastery of the skill. Repetitions fix knowledge. Practise makes perfect.

Whereas lack of practice erodes memory traces and reduces the quality of the skill.

The law of effect

Thorndike identified effect as the most important aspect of teaching and learning. This is why we reward good behaviour and punish poor behaviour.

For a performer, a response that is accompanied by a feeling of worth, pleasure or satisfaction, is likely to be repeated as the performer craves the positive emotional experiences associated with this course of action.

Conversely, actions that result in annoyance, displeasure or regret are less likely to recur. The coach praises good performances and discourages poor performances through lack of attention or chastisement.

Readers might like to consider how is the cat in the image at the top demonstrating the law of effect?

Additional reading

- *The Psychology of behaviourism*
- *Thorndike's puzzle boxes*

Teaching activities/homework tasks

- *Collect examples from a variety of activities to illustrate each law. For example, Chinese drilling of table tennis skills illustrates the law of exercise.*
- *Explain how a coach would use each of Thorndike's laws when teaching a new skill.*
- *Discuss which of Thorndike's laws is most important for learning.*

Getting to grips with the coach-based PDP

Chief Examiner Dennis Tattoo considers some of the issues facing candidates who undertake the Performance Development Programme as a coach.

Although the majority of students seek to develop their Performance Development Programme (PDP) as a performer, there are some who advance their coaching skills by undertaking the task as a coach. Summarised below are considerations about how the task differs from that of the performer.

There is a recent example of a coach-based PDP on the Pearson website, January 2020, which provides another resource students would benefit from reading through.

In the *physiological* task the key difference is that the student undertakes the task by *supervising* an individual or group and using the data generated by the fitness tests undertaken to identify strengths and areas for development, instead of undertaking the tests themselves as they would as a performer. In order to achieve high marks students must ensure that they identify and justify the three most important components of fitness and choose appropriate fitness tests to assess levels of performance. Once completed students must accurately interpret the data generated and then correctly interpret the future priorities for training.

Students need to try and ensure that the justification of the three components is based on evidence and should be encouraged to take advantage of technical journals and research papers that are now readily available online. As well as referencing normative data, students should also consider the performances of elite athletes or other athletes of similar age and experience to help benchmark the outcomes of the tests undertaken.

It is in the *technical* component that the coach would have to undertake work that is *markedly different* to that of the performer, as the coach is required to use qualitative data to analyse a core element of coaching such as communication or planning and organisation. Because qualitative data is descriptive in nature, students need to consider ways in which they can collate useful information for analytical purposes.

Examples might include feedback in the form of surveys from the athletes they are coaching, observations of independent higher-level coaches and self-evaluation by recording themselves in the coaching setting.



Communication is one of the core coaching elements that can be considered for the technical section of the PDP

To achieve a high mark for this section, students need to demonstrate that data has been used effectively to support an accurate analysis of strengths and weaknesses in order to justify key areas for development of their chosen aspect of coaching performance.

The *tactical* component for a coach is the same task as the performer, one in which data is used to analyse a tactic, its application and how it might be adapted to changing circumstances. It is worth noting here that many students produce excellent descriptions of tactics; to achieve high marks a demonstrably high level of analysis is required, such as the success rates from set plays in games like football, basketball and hockey.

In the *planning* section of the PDP the coach would be outlining and then leading a coaching programme for their athletes, rather than following the training programme themselves.

The coach needs to consider a programme that addresses SMARTER targets, the application of coaching and principles and methods of coaching together with a suitable approach to monitoring their own coaching progress.

The twin objectives of demonstrating progress in athlete performance as well as the quality of their own coaching provides another layer of demand for the coach and it is important that careful preparation underpins this work in order to avoid an inflated word count.

	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree
I am always able to motivate my athletes to give their best in training and matches					
I always involve my athletes in the planning of the training sessions					
I always have high expectations of all my athletes					
My sessions are always well planned and organised					
I always communicate my ideas clearly					
My sessions are always worthwhile					

Feedback from the athletes in the form of questionnaires can provide useful data for the coach

The coach has to utilise data to consider the effectiveness of the coaching programme and make suggestions for future developments. For high marks, the coach needs to provide evidence of ongoing reflection / monitoring on the quality of their coaching and that the evaluation addresses their personal development as a coach. It is at this point that the coach might refer to the qualitative data produced for the technical section if it was produced.

The PDP provides an excellent opportunity for students to advance their coaching and, in doing so, improve the mark awarded for component three. Working alongside an advanced level coach provides an opportunity to learn from a well-qualified mentor, someone able to advise on the coaching principles which are central to the task.

Resources Reviews

Chief Examiner Dennis Tattoo continues Inside Track's regular reviews of the resources and information which teachers and students might find of interest.

Gold Rush

Still available on the BBC iPlayer is an excellent three-part documentary which describes how Team GB has moved on from a disappointing Olympics in Atlanta 1996 to medal successes in the twenty first century. Athletes and coaches past and present share their stories and politicians outline decisions made to increase the funding levels of the Olympic teams.



Kate French wins the Modern Pentathlon in Tokyo; one of the sports which benefitted from better funding and support.

The technology of the Tokyo Track

Karsten Warholm and Sydney McLaughlin's performances in the 400 metres hurdles were two of the most stunning athletic performances in recent years. Warholm was one of the athletes to point out the benefits of the fast track in Tokyo.



The technology of the track included rubberised granules in the top layer to enhance both energy return and shock absorption and hexagonal air-filled chambers appeared to give a 'trampoline' effect to reduce contact with the surface.