



## To be opened on receipt

#### LEVEL 2 AWARD THINKING AND REASONING SKILLS

B902/01/RB Unit 2 Thinking and Reasoning Skills Case Study

**PRE-RELEASE MATERIAL** 

**JUNE 2017** 

#### **INSTRUCTIONS TO CANDIDATES**

 This Resource Booklet is for examination preparation. You will be given a clean copy in the examination.

#### INFORMATION FOR CANDIDATES

CONTENTS OF THE RESOURCE BOOKLET

Background information

Document 1 Adapted extracts from a 2012 article in *Time Magazine*2013 article from the *Guardian* newspaper about Armstrong's confession

Document 3 Extracts from an online debate about whether or not Lance Armstrong should be forced to pay back his winnings

Document 4 Images and an extract from the UK's Anti-Doping website 2015 article from the *Guardian* newspaper about EPO

Document 6 Information from BBC Ethics about the use of legal methods to

enhance sporting performance

Document 7 Doping survey

This document consists of 12 pages. Any blank pages are indicated.

#### **INSTRUCTION TO EXAMS OFFICER/INVIGILATOR**

 Do not send this Resource Booklet for marking; it should be retained in the centre or recycled. Please contact OCR Copyright should you wish to reuse this document.

#### **Background information**

The use of performance-enhancing drugs in sport is controversial. Certain substances have been banned by most international sports organisations, whilst others are prohibited only by particular sports because of their specific effects on performance in that sport. It is known as *doping* in competitive sports when performance-enhancing drugs or methods are used that have been banned by the organisations that govern the sport. Reasons for banning certain substances range from health risks to concerns about the ethical implications related to fairness and equal opportunities in sport. Anti-doping authorities argue that doping goes against the spirit of sportsmanship and that competitive sport should be drug-free.

Whilst taking substances to enhance performance is not a new thing – it goes back as far as sport itself – our growing knowledge of the human body and the effect of certain chemicals upon it have brought new challenges to the way in which it is regulated and new dimensions to the ethical debate. A spate of doping cases among successful, professional athletes in recent decades has led to concerns about the immense pressure that athletes are under to succeed.

The World Anti-Doping Agency (WADA) was established in 1999, following a doping scandal in cycling in the 1998 Tour de France. WADA publish annually a *Prohibited List* of specific substances and methods. Some substances on the list are banned from use in professional sport under all circumstances, others only in competitions and some, such as alcohol in archery and powerboating, are banned only in certain sports. Prohibited methods include the use of diuretics, which are not in themselves illegal, but can be used to dilute or mask other substances from being detected in testing.

When a sportsperson tests positive for a banned substance or is caught using a prohibited method, they face the consequences set by the governing body for their particular sport or for the competition in which the doping takes place. For example, if an Olympic competitor was found to be doping, the International Olympic Committee (IOC) may issue a ban from competing for a set period of time and, if any medals had been won, may also strip them of their medal and title.

There have been many doping scandals in sport, though one in particular has been at the centre of the doping debate in recent years. Lance Armstrong was the 1993 Elite Men's Road Race World Champion, and seven times winner of the Tour de France between 1999 and 2005. In 2012, he was stripped of his Tour de France victories and his 2003 Olympic Bronze medal. The allegations that he had used performance-enhancing drugs throughout his sporting career led to him receiving a lifetime ban from all sports governed by WADA. He publicly confessed to some of the allegations while appearing on Oprah, an American talk show, which led to him facing legal proceedings and being dropped by his sponsors and the cancer charity he had founded. The United States Anti-Doping Agency described the doping programme that Armstrong led as 'the most sophisticated, professionalized and successful doping program that sport has ever seen.' In 2015, Armstrong was ordered to pay back ten million dollars he had earned in competition bonuses. Public opinion is still divided on a number of related issues, including whether he should have been forced to pay back his competition winnings and sponsorship and whether he should be allowed to compete again in the future.

#### Adapted extracts from a 2012 article in *Time Magazine*

'Enough is enough.' With those loaded words, seven-time Tour de France winner, cancer survivor and patient advocate Lance Armstrong put an end to the accusations of doping that have dogged him for years. Faced with a deadline for responding to allegations by the US Anti-Doping Agency (USADA) that he both used and distributed performance-enhancing drugs during his competitive cycling career, Armstrong decided on Thursday to accept the agency's punishment.

USADA swiftly revoked all seven of Armstrong's Tour titles and banned him for life from the sport of cycling. Armstrong has been a controversial figure in a sport buffeted by doping scandals; as the only cyclist to win the grueling Tour de France seven times, he became a lightning rod for rumors and accusations of cheating through doping. Armstrong won the first of his consecutive Tour titles three years after being diagnosed with testicular cancer.

USADA says it has evidence that Armstrong had, since 1999, led a conspiracy involving trainers and lab officials to encourage doping among certain cycling teams, as well as to cover up allegedly positive results from some riders. Two former members of Armstrong's United States Postal Service and Discovery Channel teams – Floyd Landis and Tyler Hamilton – confessed to doping and told the agency they knew Armstrong used banned substances to fuel several of his Tour victories between 1999 and 2005.

In a statement posted on his website, Armstrong detailed his reasons for ending his fight against USADA, saying that the strain of the constant accusations has 'taken a toll on my family, and my work for our foundation and on me.' He maintains his innocence. 'I refuse to participate in a process that is so one-sided and unfair,' he wrote of USADA's investigation. 'There is zero physical evidence to support [the] outlandish and heinous claims. The only physical evidence here is the hundreds of controls I have passed with flying colours.'

The anti-doping rule violations for which Mr Armstrong is being sanctioned are:

- Use and/or attempted use of prohibited substances and/or methods including EPO, blood transfusions, testosterone, corticosteroids and masking agents.
- Possession of prohibited substances and/or methods including EPO, blood transfusions and related equipment (such as needles, blood bags, storage containers and other transfusion equipment and blood parameters measuring devices), testosterone, corticosteroids and masking agents.
- 3. Trafficking of EPO, testosterone and corticosteroids.
- 4. Administration and/or attempted administration to others of EPO, testosterone and cortisone.
- 5. Assisting, encouraging, aiding, abetting, covering up and other complicity involving one or more anti-doping rule violations and/or attempted anti-doping rule violations.

In following the WADA testing regulations, USADA can test athletes during competitions and at any time afterward, without notice. The surprise element can help catch dopers before they've had time to clear their system of any banned substances, but that's not the only way testers are going after cheaters. New tests have been developed to detect illegal concentrations of performance-enhancers much more accurately. Human growth hormone and testosterone, for example, pose particular challenges since they occur naturally in the body to varying degrees – so, where is the line between normal and performance-enhancing?

#### 2013 article from the *Guardian* newspaper about Armstrong's confession

Lance Armstrong has admitted for the first time that he doped to win all seven of his Tour de France titles, turning his back on years of denials and confessing that his career at the top of competitive cycling was fuelled by drugs, lies and bullying.

In a television interview with Oprah Winfrey, broadcast on Thursday night, Armstrong said it would not have been possible to win the titles without cheating; such was the prevalence of performance-enhancing drugs in the sport at the time.

However, Armstrong, 41, denied being a mastermind who threatened other teammates to dope, and rejected allegations that he bribed the International Cycling Union and a Swiss laboratory to cover up his cheating. He also denied taking drugs during his comeback in 2009 and 2010, and did not indicate – at least not in the first of a two-part broadcast – whether he would cooperate with the anti-doping agency USADA so that he can return to competitive sport, as has been reported.

This limited confession will fuel suspicion in some quarters that it was made only because Armstrong was backed into a corner after a berating report from USADA last year and that, in a strategy devised by his close-knit team of advisers, he chose to withhold the full truth in an attempt to avoid criminal prosecution.

Winfrey opened the interview with a series of questions, to which she requested 'yes or no' answers from Armstrong. Asked if he used drugs to win his Tour titles he replied: 'Yes.' Asked if they included steroids, EPO and PED, he said: 'Yes.' Asked if it was humanly possible to win the Tour seven consecutive times, as he did from 1999–2005, he said in his opinion it was not. 'I view this situation as one big lie that I repeated a lot of times,' he said.

The confession, even if widely deemed partial, was a dramatic turnaround for a man who has spent two decades defying and threatening those who challenged his record.

Dressed casually in a navy blazer, blue shirt and slacks, Armstrong looked tense and at times bristled while casting himself as a flawed, contrite human being who got caught up in a 'culture' of doping, which, he implied, included most riders of his generation. 'I didn't invent the culture and I didn't try to stop the culture. ... and the sport is now paying the price of that and I'm sorry for that. I didn't have access to anything else that nobody else did.'

He said he 'lost himself' in the fairytale narrative of an athlete who battled back from testicular cancer to triumph in cycling's most gruelling race, raise a beautiful family and launch a cancer charity, Livestrong.

Challenged by Winfrey over multiple accounts that he ordered teammates to dope, he appeared to squirm. 'I was the top rider ... the team leader but not the manager. There was never a direct order or directive that you have to do this. We were grown men, we all made our choices.'

He denied threatening to expel those who refused to cheat but conceded the 'level of expectation, of pressure' could have compelled some riders to do so.

Armstrong, who was closeted with his advisers in advance of the interview, cited his mother and his cancer for reasons he was so competitive, but admitted doping before the cancer. The cheating programme was so effective he knew he was going to beat rivals. 'Those Tours ... I knew, I knew I was going to win.'

He apologised to Emma O'Reilly, a team masseuse whom he sued for calling him a cheat. 'She's one of these people I have to apologise to ... who got bullied, who got run over.'

Armstrong said accusers such as the journalist David Walsh and Betsy Andreu, a teammate's wife, suffered the wrath of a 'guy who expected to get everything he wanted, and to control everything'.

He said his comeback was a tactical mistake that galvanised investigations which eventually unravelled his deception. 'We wouldn't be sitting here if I didn't come back.'

#### **DOCUMENT 3**

# Extracts from an online debate about whether or not Lance Armstrong should be forced to pay back his winnings

44% said 'Yes'

56% said 'No'

#### Document 3a Some arguments for 'Yes'

I think that whatever prize money Lance Armstrong received from the Tour de France, or any other competition he has won, should be paid back. This would send a strong message that taking performance-enhancing drugs comes with a cost. He probably wouldn't have won without the drugs and he shouldn't have the money.

Lance Armstrong should be required to return the prize money he dishonestly accepted when he won races by using performance-enhancing drugs. As part of the penalties he incurs it should be expected he returns the prize money to the distributors of the money. His titles should be stripped also and his motivational books should be placed in the fiction sections of the libraries which carry them. He used banned substances to increase his edge and only beat other racers because he cheated. He does not deserve to keep the money he won by cheating.

Lance Armstrong cheated to win that prize money. He has enjoyed that money and a lot of other money he made because of it. He has enjoyed the acclaim and the admiration of people around the world that was not deserved. The people who competed against him honestly were deprived of a chance to win. Where are those people today, and what might they have done if they had won? Lance Armstrong should be stripped of everything.

He ruined people's lives, and therefore he should pay it back to compensate those who suffered. He was part of the rotten core of professional sport that means it's impossible to compete unless you're doping. This culture (perpetuated by this uber-cheat) has led directly and indirectly to many ruined lives, probably lots of drug related deaths and diseases, and the ruined dreams of thousands of cyclists and other athletes who wanted a professional career but had to abandon their dream because they didn't want to cheat. Not only that, Lance took a bunch of people through the courts to conceal his deceit and crushed them under the weight of his legal team which had virtually limitless funds, all the time in the full knowledge that he was concealing one of the biggest lies in the history of sport. Some people say that we should remember how many people suffering from cancer were inspired by him, but letting him get away with doping and letting him back into competitive sports scot-free is outrageous. It would be like forgiving Hitler for the Holocaust on the grounds that he rescued the German economy from hyper-inflation.

Other hardworking sportspeople have tried to win and failed time and time again because they refuse to cheat like the winners do. Where is the justice in that?

#### Document 3b Some arguments for 'No'

Lance Armstrong should not have to pay back his prize money. He earned this money through hard work whether he was doping or not. Also, we have no way of knowing whether the people he beat in those competitions were doping too. To punish him now, after the fact, would not be fair to him or the sport. I think if it was an issue then we should have stopped him before he was racing.

Lance should get to keep his prize money because so much time has passed, and his performance-enhancing drug habit wasn't detected. Better drug testing should have been in place to detect substances that were prohibited. If anyone deserves a financial penalty, it's the people in charge of drugs testing in those competitions. Since Lance slipped through the cracks, he should be able to keep his prize money. It's ridiculous that all this time has passed and he is just now being punished for taking a substance that was frowned upon.

To justify taking his prize money away, cycling would have to prove he was the only one doping when he won. Proving the others in the competition were not doping is impossible, so he shouldn't be ordered to pay back his winnings.

He's been crippled enough by losing all his endorsements and having his name ruined, so we should leave him alone now to rebuild his life. Drugs will always be a part of professional sport. It's time we accepted that and stopped the witch hunt against those who get caught up in it.

#### Images and an extract from the UK's Anti-Doping website





Doping in sport remains a serious and difficult issue, putting an athlete's health at risk, threatening the integrity of clean athletes and the reputation of sport.

Substances and methods are banned for a reason. Doping, the use of artificial enhancements and methods to gain an advantage over others in competition, is cheating and is fundamentally contrary to the spirit of sport. Furthermore, doping damages competition for clean athletes who play by the rules. It is integral to the nature of sport itself that spectators and participants of all sports are confident that the competition is clean.

Doping affects all levels of athlete. It could also affect future generations who may be influenced by what top athletes do. To protect the integrity of sport, the health of athletes, and young aspiring sports people worldwide, we need a concerted and comprehensive approach to the fight against doping.

#### 2015 article from the *Guardian* newspaper about EPO

#### What is blood doping?

Blood doping is the use of certain techniques or substances to increase the mass of red blood cells and therefore haemoglobin in the body. This allows the body to transport more oxygen to muscles and so increase stamina and performance, making it particularly effective for endurance events. There are three widely known substances or methods used for blood doping: injections of erythropoietin (EPO), synthetic oxygen carriers and blood transfusions:

- EPO, which was used by Lance Armstrong throughout his cycling career, is a hormone released from the kidneys that acts on bone marrow to stimulate red blood cell production.
- Synthetic oxygen carriers are purified proteins or chemicals having the ability to carry oxygen and so, like the other methods, boost the amount of oxygen in the blood.
- Blood transfusions can be of one's own blood (autologous) which has previously been removed and refrigerated or frozen, or taken from another person (homologous) with the matching blood type.

#### Can it be detected through testing?

There are currently direct tests to detect all of the above except autologous blood transfusions. The athlete passport, endorsed by WADA, is a way of trying to catch people guilty of trying to cheat using autologous blood transfusions. It works by monitoring differences in samples over time to see if they indicate doping.

#### What are the risks?

Unnaturally high red blood cell levels, which thicken the blood and force the heart to work harder, increase the risk of heart attack, stroke, and pulmonary or cerebral embolism. Additionally, blood doping via transfusion carries the risk of contracting a virus if the blood is tainted.

#### Has anyone died as a result of blood doping?

Despite anecdotal evidence surrounding a number of untimely deaths it has proved difficult to conclusively attribute them to EPO.

Between 1987, shortly after athletes are believed to have begun using EPO, and 1990, 20 young Belgian and Dutch cyclists died. One of them was Johannes Draaijer, a 27 year-old racer from the Netherlands who finished 20th in the 1989 Tour de France. In February 1990 he died in his sleep of a heart blockage a few days after completing a race in Italy. An autopsy did not specify the cause of death – he had been passed fit to ride by a doctor – but in a television interview afterwards, his widow said she hoped his fate would serve as a warning to other athletes who take the drug. Between 1989 and 1992, seven young Swedish orienteering enthusiasts died mysteriously and there was another cluster of cyclist deaths in 2003–4, when eight aged under 35 died.

#### Information from BBC Ethics about the use of legal methods to enhance sporting performance

#### Body modification

Where do we draw the line between acceptable behaviour and cheating? All athletes tamper with their bodies. The following examples of tampering demonstrate varying degrees of acceptability.

- Athletes exercise, train and follow special diets. They may wear special clothing to cut down
  wind or water resistance, and cut their hair and remove body hair for the same reason. If they
  are injured they are likely to receive medical treatment in order to get them competing again
  as soon as possible.
- Some may undergo cosmetic (non-essential) surgery for example, to speed recovery from an injury. They may even opt for performance-enhancing surgery: laser eye surgery for a golfer or archer is one possibility. Athletes from countries near sea level use 'altitude tent' treatments to acclimatise themselves to compete at higher altitudes.
- And some use drugs to increase their muscle mass, allow faster oxygen delivery to the muscles
  or allow them to train longer.

The practices in the first point are universally seen as acceptable. Sporting authorities, and many people, think using drugs to enhance performance as in the third point is unacceptable: it's cheating.

The second point illustrates a grey area that is continuously debated. (It may be surprising to note that laser eye treatment on athletes with healthy vision is not banned from sport.) It seems that to most people this is a question not of tampering, but of scale.

#### An example

To illustrate the question further, let us consider a Premiership footballer and a sprinter.

- The footballer uses an inhaler to control his asthma.
- The sprinter takes THG, a muscle-building 'designer' steroid.

A lot of people would say that the footballer's inhaler is fine (if he really is asthmatic) but the sprinter is cheating. That's certainly the position of the sporting authorities.

Asthma treatments definitely affect performance. In fact, they contain banned substances. They must be approved before an athlete may use them. Why are they allowed at all, if such drugs as THG are not permitted under any circumstances?

There is nothing wrong with the sprinter; she could compete without her steroid (though she might not place as highly). The footballer has a medical condition that would otherwise make him unable to compete without doubling over and wheezing.

But the sprinter might argue that asthma is a natural disadvantage, just like being a slightly slower runner, and that if we wanted to be consistent we should take the footballer's inhaler away too!

#### Drawing the line

The problem is sometimes phrased as the distinction between therapy (treating an illness) and enhancement. The example above seems straightforward at first glance, but when we try to define a single point at which an acceptable 'therapy' becomes an unacceptable 'enhancement', problems arise

It is also difficult to pinpoint the difference between some of the legal and illegal performance-enhancing treatments used by athletes. The distinctions used by regulatory bodies are sometimes criticised.

For example, two similar dietary supplements can be on different sides of the line, or a previously-legal supplement can be made illegal, because of seemingly small differences in chemistry.

#### **Doping Survey**

As part of his Extended Project at school about doping in sport, Harris decided to conduct a questionnaire among students who play competitive sport in schools in his area. A copy of his questionnaire is given below.

### **Doping Questionnaire**

Should doping in sport be allowed?

- At all ages and in all sports
- Over 18 only and in all sports
- Over 18 only and in some sports
- Under no circumstances

Would you consider doping if it were legalised in your sport?

- Yes
- No
- Maybe

Should doping be better regulated?

- Yes
- No
- Don't know

Do you have any comments about doping in sport?	

Some results from Harris' survey are given below:

- 50 people completed the survey fully and correctly.
- 30% said that doping should not be allowed under any circumstances.
- 20% of those who said there should be an age restriction on doping said that it should apply to all sports.
- 10 people thought that doping should be allowed with no restrictions.
- 55% said 'yes' they would consider doping if it were legal.
- Those who said that doping ought to be better regulated were equal in number to those who said it shouldn't be better regulated.

Some of the comments made by the people who completed the survey are given below:

So-called 'experts' claim that doping is cheating and destroys the integrity of sport; but they're just hypocrites who've never played a day of sport in their lives, so we should ignore them.

Doping has been around since the Ancient Greeks, so I don't know what all the fuss is about.

Many athletes use caffeine to boost their performance, which is completely legal, but it can increase time to exhaustion by 10%. The same applies to beetroot extract – some trials have shown it to increase time to exhaustion by 20%! Where do we draw the line between 'things that savvy sportspeople do to make them perform better' and 'doping'?

If doping were allowed (even with an age restriction), my parents would never have invested so much time, money and effort in encouraging me to get better at running, and I'd have spent all my spare time on the sofa eating crisps and playing mindless computer games, and I'd be clinically obese.

The main reason people give for the legalisation of doping in sport, especially EPOs and testosterone, is that it is difficult to test for unnatural levels of naturally occurring substances. This is ridiculous, though. It's like saying that we should legalise murder because we can't possibly catch every murderer!

My football coach is always banging on about the dangers of doping, but he's been on steroids for years so I'll make my own decisions, thank you very much.



#### Copyright Information

OCR is committed to seeking permission to reproduce all third-party content that it uses in its assessment materials. OCR has attempted to identify and contact all copyright holders whose work is used in this paper. To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced in the OCR Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download from our public website (www.ocr.org.uk) after the live examination series.

If OCR has unwittingly failed to correctly acknowledge or clear any third-party content in this assessment material, OCR will be happy to correct its mistake at the earliest possible opportunity.

For queries or further information please contact the Copyright Team, First Floor, 9 Hills Road, Cambridge CB2 1GE.

OCR is part of the Cambridge Assessment Group; Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.