
THINKING SKILLS

Paper 4 Applied Reasoning

9694/41

October/November 2016

1 hour 30 minutes

No Additional Materials are required.

READ THESE INSTRUCTIONS FIRST

An answer booklet is provided inside this question paper. You should follow the instructions on the front cover of the answer booklet. If you need additional answer paper ask the invigilator for a continuation booklet.

Answer **all** the questions.

The number of marks is given in brackets [] at the end of each question.



This document consists of **7** printed pages, **1** blank page and **1** insert.

1 Study the information below and answer the question that follows.

A pressure group wanted to collect data about the influence of alcohol advertising on 11 to 18-year-olds. A number of websites visited by young people carried a link to the survey and offered them the chance to win \$50 worth of vouchers for a leading fashion retailer.

The survey first asked respondents to confirm that they were aged between 11 and 18 before they were allowed to take part. The respondents were then asked to click *yes* or *no* in response to the questions below:

<i>Question</i>	<i>Possible responses</i>		<i>Most common response</i>
Do you agree that you are influenced by advertisements on various media?	Yes	No	Yes
On alcohol-advertising websites, they ask you to enter a date of birth to prove you are over 18. Is this enough?	Yes, this is enough to stop me.	No, it's easy to enter another date.	No
Do you think alcohol advertising on various media should be restricted?	Yes	No	Yes

Over 2000 people completed the survey and the pressure group claimed, "Children as young as 11 are being influenced by alcohol advertisements and most 11 to 18-year-olds support restrictions on advertising."

Make **five** criticisms of the way the survey was conducted and/or the claims drawn from it. [5]

Questions 2, 3 and 4 refer to Documents 1 to 5.

2 Briefly analyse Oscar's argument in Document 1: *By any means*, by identifying its main conclusion, intermediate conclusions and any counter-assertions. [6]

3 Give a critical evaluation of the strength of Oscar's argument in Document 1: *By any means*, by identifying and explaining any flaws, implicit assumptions and other weaknesses. [9]

4 'There should be no restrictions on the use of performance-enhancing substances in sport.'

Construct a reasoned argument to support **or** challenge this claim, commenting critically on some or all of Documents 1 to 5 and introducing ideas of your own. [30]

DOCUMENT 1

By any means

Many people remember the Seoul Olympics in 1988. For many the key event was the men's 100 metres. We had the spectacle of Canada's Ben Johnson winning in a new record time of 9.81 seconds, way ahead of the favourite, Carl Lewis of the USA. But then who can forget the bombshell only days later when Johnson, having tested positive for the use of performance-enhancing drugs, was stripped of the gold medal and left the games in disgrace? Scandals like this detract from sport. They should become a thing of the past.

Everyone had hoped such events would rarely be repeated and the way to ensure that, we were told, was by more rigorous testing of competitors in all sports. But this system has not worked – current estimates are that up to 10% of sports stars use drugs to enhance performance. So the rigorous testing approach has been a waste of time. The other way to prevent a repetition of the excitement-followed-by-disappointment cycle of Seoul is to legalise the use of performance-enhancing drugs in sport. This would be a much more sensible course of action.

Spectators want to see records broken. The margins by which records are improved have been getting ever smaller; we are getting close to the limits of human ability. In a few years records will cease to be broken. The Olympic motto, *Citius, Altius, Fortius*, means faster, higher, stronger. The use of drugs would enable athletes to become just that. Allowing the use of drugs will make sport more exciting for spectators.

Times have changed. The current rules of sport were drawn up when much of sport was amateur. It was all about gentlemen 'playing the game'. The use of drugs was just not cricket! Sports that were once completely amateur, like athletics and rugby, are now professional. The drug rules we have now are out-dated. Stubborn traditionalists, who oppose a lifting of the ban, claim that sport is about fair competition and the use of drugs by some athletes is not fair. But it is not fair to restrict the freedom of those who want to use drugs.

Drugs should be seen as an extra piece of sports equipment, like the latest tennis racket. Athletics records increased after the introduction of shoes with running spikes. In Formula 1 motor racing we do not make everyone drive a vehicle from the 1920s, when the sport was invented. If everything had to be fair then where does it stop? Same equipment, same food, same training and then everyone crossing the line together – that would not be sport as we know it. Athletes would need to have their food intake monitored for weeks before the event.

It is very difficult to clearly define the difference between a drug and a health supplement anyway. Taking steroids to build muscles is very similar to taking protein supplements. Health supplements are not banned, so there is no reason that drugs should be.

Having a system in which substances are banned is expensive and wasteful. A lot of time and money is spent testing athletes for banned substances, developing new technologies to keep one step ahead of the cheats, deciding what constitutes a banned substance and paying lawyers when athletes oppose a ban. For a top sportsman or woman, being banned for using drugs can mean millions of dollars in lost earnings. The money saved if the ban was lifted could be spent on better facilities or aiding sport development in poor countries where children have to play football with no shoes on their feet.

Oscar

DOCUMENT 2

The arguments against legalised doping

One of the oddest elements of the Lance Armstrong doping case was the number of people who concluded as a result that doping should be permitted in cycling.

What do you mean by 'drugs'?

Very basically, fans need to realise that 'drugs in sport' is not a catch-all term. There seems to be a myth that doping is akin to activating a cheat on a computer game – you stick a needle in an athlete's arm and they automatically boost their attributes by 10%. The term 'doping' or 'drugs' can range from bulking up using steroids to manipulating the oxygen-carrying capacity of your blood. Advocates of legalised doping need to be clear as to which drugs should be legalised – all of them or only some? – and realise that doing this would open athletes up to numerous health risks.

Making a 'level playing field'

The main argument for legalisation is that doing so would create a level playing field, whereby all athletes would start from the same place and have access to the same drugs. This argument is flawed for a number of reasons. Primarily – and it's a kind of obvious thing to have to point out – human beings' bodies are not all the same; they react to different drugs in different ways. Some riders will find some performance-enhancing drugs help them, but others will find the opposite. Former Armstrong team-mate Tyler Hamilton said in a recent interview, "For me, growth hormone, when I tried it, felt awful. My legs felt sluggish. But some riders loved it, and that was their thing."

Health risks

In addition to this, saying doping should be legalised is akin to asking someone to put their health at serious risk for spectators' entertainment. The website of the anti-doping organisation Bike Pure has a handy list of the health risks associated with doping. These include an increased risk of cardiovascular disease, liver disease, sterility and depression through steroid use; whilst blood doping carries risks of septicaemia, blood clots, strokes, heart failure and increased risk of heart attacks. It's surely beyond any person's moral code to ask athletes to expose themselves to these risks for the sake of sport.

Taking a sentimental view

I watch cycling because I like seeing people haul themselves up a huge mountain on a tiny carbon-framed bike. I like watching people ride over 200 km and then out-think and out-pace their rivals in a sprint to the finish line. I like watching people riding through cobblestones and mud in Belgium and Northern France or being fast and smart enough to win a time trial. As we've seen with Lance Armstrong, those performances are instantly tainted when you find out they were done not solely through natural talent and training. I generally find that those who advocate legalised doping or applaud Armstrong for doing what it took to win (such as sociologist Malcolm Gladwell) are not actually fans of the sport. It's beautiful, epic, romantic even – none of those adjectives can apply to doping. Cycling, when boiled down to its core, is about one person and a bike taking on everything else, and so it should remain.

DOCUMENT 3**Sprint legends clash over Tyson Gay and Asafa Powell**

Former world 200 m champion Ato Boldon says he has sympathy with athletes who fail drug tests because of supplements. But former 100 m Olympic and world champion Donovan Bailey insists there can be no excuses for athletes who take banned substances.

After sprinters Tyson Gay and Asafa Powell tested positive for banned drugs, Boldon said, "An athlete does not have a degree in pharmacology." But Bailey said, "Athletes must know what is on the 'banned' list. It could be time to consider life bans for those caught taking banned substances."

It is not known which substance Gay, the fastest man in the world this year, has tested positive for. That information should be made public once the result of the American's B sample is known. Powell was tested at the Jamaican trials in June and returned an adverse finding for oxilofrine, a stimulant that boosts fat-burning.

Boldon said it was important to make a distinction between blood-doping and "people trying to push the envelope with their supplements". He added, "An athlete is trusting of the person he is buying the supplements from, or the coach, or whoever is providing these supplements. When you listen to Tyson, he is saying he put his faith in someone and they let him down."

Bailey, who won Olympic and world 100 m gold medals and has held the 100 m world record, has a zero-tolerance policy on drug-taking. The 45-year-old said, "Every single athlete is given a banned list and they should look carefully down it. When money is involved, you are going to have cheats, people who push the envelope. We are in a sport where one thousandth of a second can be the difference between success and failure. Athletes who take drugs tend to be insecure. They don't believe they have the physical and/or mental capacity to do great things so they take another route – the pharmaceutical route, if you like."

On Gay claiming he was let down by someone he trusted, Bailey added, "You don't go to an athletics meeting to watch the trainer, coach or masseur run a race. The onus is 100% on the athlete to take responsibility for any substances going into their body."

Boldon suggested stimulants and supplements are here to stay and said it was naive to think they could be banned. He added, "I think the problem is in trying to push the envelope and get to the edge. Several of the top names in the sport are falling over the edge."

Lord Sebastian Coe reacted to the positive tests by insisting that athletics will intensify the fight against drug-taking. Lord Coe, Vice-president of the International Association of Athletics Federations and Chairman of the British Olympic Association, said, "The most important thing for me is that the testing system is working. For the sake of clean athletes, it is very important we do not flinch in our efforts. This is not a war we can afford to lose and it is important for any athlete to know that if they want to risk cheating they are going to get caught."

DOCUMENT 4**Some comments on a web forum about performance-enhancing drugs**

Allowing drugs is against the rules of sport. Sport is all about following the rules. So there is no question that using drugs is cheating and should be banned.

YB, Australia

People watch sport to see the best performances. If drugs make performances better, then they should be allowed. If people think the performance they are watching could be improved by drugs, it might put them off watching the 'drug-free' event. Viewing figures for cycling have not dropped after the doping scandal.

SM, Belgium

Athletes are mature, responsible adults who can make their own decisions about health so substances should not be banned purely on the grounds that they might be 'bad for your health'.

CB, Cyprus

Sport is about being healthy. Drugs are not compatible with a healthy lifestyle. Look at that East German woman shot-putter who took so many steroids she eventually became a man!

JC, Dominican Republic

Many of the banned substances have not even been proven to improve performance, so why ban them? Anyway, you get a lot of 'false positives' and drug tests probably only catch those who cannot afford the know-how to get round the testing procedures.

RV, Ecuador

Sport is supposed to be about the taking part, not winning at all costs. Allowing the use of performance enhancers would encourage the belief that winning is more important than taking part.

BD, France

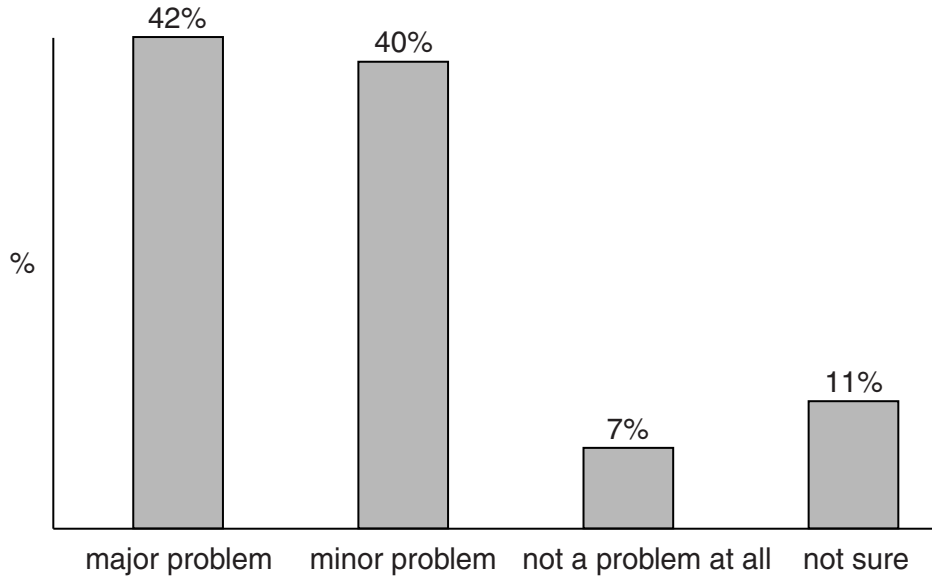
Even if an individual performance-enhancing drug is not directly harmful to health, its use encourages the use of other substances, many of which will be harmful.

HB, Greece

DOCUMENT 5

Results of a 2013 UK survey on public attitudes to the use of drugs in sport

How much of a problem do you think is the use of steroids and other performance-enhancing drugs by professional athletes?



What proportion of professional competitors in the following sports would you say use steroids or other performance-enhancing drugs?

Sport	Percentage who chose each of the following options				
	Most	Around half	Less than half	Very few	Not sure
Athletics	16	22	28	7	27
Cricket	9	13	42	17	19
Cycling	20	22	32	7	19
Football (Soccer)	13	22	30	6	29
Swimming	12	17	32	13	26

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