

His plan hinged on the success of an experimental anti-depressant codenamed MK-869. Still in clinical trials, it was a new kind of medication that exploited brain chemistry in innovative ways to promote feelings of well-being. The drug tested extremely well early on, with minimal side effects. Behind the scenes, however, MK-869 was starting to unravel. True, many test subjects treated with the medication felt their hopelessness and anxiety lift. But so did nearly the same number who took a placebo, a look-alike pill made of milk sugar or another inert substance given to groups of volunteers in subsequent clinical trials to gauge the effectiveness of the real drug by comparison. Ultimately, Merck's venture into the anti-depressant market failed. In the jargon of the industry, the trials crossed the "futility boundary".

MK-869 has not been the only much-awaited medical breakthrough to be undone in recent years by the placebo effect. And it's not only trials of new drugs that are crossing the futility boundary. Some products that have been on the market for decades are faltering in more recent follow-up tests. It's not that the old medications are getting weaker, drug developers say. It's as if the placebo effect is somehow getting stronger. The fact that an increasing number of medications are unable to beat sugar pills has thrown the industry into crisis. The stakes could hardly be higher. To win FDA* approval, a new medication must beat placebo in at least two authenticated trials. In today's economy, the fate of a well-established company can hang on the outcome of a handful of tests.

Why are fake pills suddenly overwhelming promising new drugs and established medicines alike? The reasons are only just beginning to be understood. A network of independent researchers is doggedly uncovering the inner workings and potential applications of the placebo effect.

A psychiatrist, William Potter, who knew that some patients really do seem to get healthier for reasons that have more to do with a doctor's empathy than with the contents of a pill, was baffled by the fact that drugs he had been prescribing for years seemed to be struggling to prove their effectiveness. Thinking that a crucial factor may have been overlooked, Potter combed through his company's database of published and unpublished trials—including those that had been kept secret because of high placebo response. His team aggregated the findings from decades of anti-depressant trials, looking for patterns and trying to see what was changing over time. What they found challenged some of the industry's basic assumptions about its drug-vetting process.

Assumption number one was that if a trial were managed correctly, a medication would perform as well or badly in a Phoenix hospital as in a Bangalore clinic. Potter discovered, however, that geographic location alone could determine the outcome. By the late 1990s, for example, the anti-anxiety drug Diazepam was still beating placebo in France and Belgium. But when the drug was tested



in the U.S., it was likely to fail. Conversely, a similar drug, Prozac, performed better in America than it did in western Europe and South Africa. It was an unsettling prospect: FDA approval could hinge on where the company chose to conduct a trial.

Mistaken assumption number two was that the standard tests used to gauge volunteers' improvement in trials yielded consistent results. Potter and his colleagues discovered that ratings by trial observers varied significantly from one testing site to another. It was like finding out that the judges in a tight race each had a different idea about the placement of the finish line.

After some coercion by Potter and others, the National Institute of Health (NIH) focused on the issue in 2000, hosting a three-day conference in Washington, and this conference launched a new wave of placebo research in academic laboratories in the U.S. and Italy that would make significant progress toward solving the mystery of what was happening in clinical trials.

In one study last year, Harvard Medical School researcher Ted Kaptchuk devised a clever strategy for testing his volunteers' response to varying levels of therapeutic ritual. The study focused on a common but painful medical condition that costs more than \$40 billion a year worldwide to treat. First, the volunteers were placed randomly in one of three groups. One group was simply put on a waiting list; researchers know that some patients get better just because they sign up for a trial. Another group received placebo treatment from a clinician who declined to engage in small talk. Volunteers in the third group got the same fake treatment from a clinician who asked them questions about symptoms, outlined the causes of the illness, and displayed optimism about their condition.

Not surprisingly, the health of those in the third group improved most. In fact, just by participating in the trial, volunteers in this high-interaction group got as much relief as did people taking the two leading prescription drugs for the condition. And the benefits of their "bogus" treatment persisted for weeks afterward, contrary to the belief—widespread in the pharmaceutical industry—that the placebo response is short-lived.

Studies like this open the door to hybrid treatment strategies that exploit the placebo effect to make real drugs safer and more effective. As Potter says, "To really do the best for your patients, you want the best placebo response plus the best drug response."

adapted from Wired Magazine

* The Food and Drugs Administration (an agency in the United States responsible for protecting public health by assuring the safety of human drugs)

line 80

5 Work in pairs.

- 1 Read the title of the summary below. Which paragraphs in the passage will you need to read carefully to do this task?
- 2 Read the summary and underline words around the gaps that express key ideas.

Questions 6–10

Complete the summary using the list of words, A–I, below.

Merck and MK-869

As a result of concerns about increasing competition in the drugs industry, the pharmaceutical company Merck decided to increase its activity in the anti-depressant market. The development of the drug MK-869 was seen as the way forward.

Initially, MK-869 had some success, but later trials revealed a different picture. Although key 9 symptoms could be treated with the drug, a sugar pill was proving equally effective. In the end, the tests indicated that it was pointless continuing with the development of the drug.

A activity	D patients	G symptoms
B prices	E tests	H competition
C success	F diseases	I criticism

6 Now read the paragraphs you identified in Exercise 5 and complete Questions 6–10 in the summary.

Exam advice Summary completion with a box

- The answers may come from more than one part of the passage.
- Use the title and words in the summary to help you find the right parts.
- Underline the words in the passage that provide the missing information – you need to match these to the correct option in the box.

7 Underline the key ideas in Questions 11–14 (not the options). Then scan the passage to find the relevant parts and read each part carefully to choose the correct options.

Questions 11–14

Choose the correct letter, A, B, C or D.

- 11 Which of the following is true of William Potter's research?
 - A It was based on recently developed drugs that he had recommended.
 - B It included trial results from a range of drugs companies.
 - C Some of the trial results he investigated had not been made public.
 - D Some of his findings were not accepted by the drugs industry.
- 12 What did William Potter's research reveal about the location of drugs trials?
 - A The placebo effect was weakest in the US.
 - B Results were not consistent around the world.
 - C Results varied depending on the type of hospital.
 - D The FDA preferred drugs to be tested in different countries.
- 13 What does the *tight race* refer to in line 80?
 - A the standard tests
 - B consistent results
 - C ratings by trial observers
 - D testing sites
- 14 What significant discovery was made by Ted Kaptchuk?
 - A The effects of a placebo can last longer than previously thought.
 - B Patients' health can improve while waiting to undergo a trial.
 - C Patients respond better to a placebo if they are treated by the same clinician throughout the trial.
 - D Those conducting a placebo trial need to know the subjects' disorder well.

Exam advice Multiple choice

- Use names and other words to scan to find the right place in the passage.
- Read above and below that part of the passage and underline the words that answer the question.

Vocabulary and grammar review Unit 2

Vocabulary

- 1 Complete these sentences by writing a phrasal verb in the correct form in each gap. Add any necessary pronouns. The first letter of each word has been given.
- 1 Unfortunately, the shirt I thought was red turned out to be orange in daylight.
 - 2 It is unwise to present an argument in your essay unless you can back it up with examples or evidence.
 - 3 During the sales meeting, staff came up with some good ideas about how to improve the appearance of the showroom.
 - 4 The assistant dealt with the customer's complaint by giving her a refund.
 - 5 It was decided to set up the exhibition in the town square in order to attract as many passers-by as possible.
 - 6 The assistant gave me a reference for the item, but unfortunately I forgot to note it down on my iPhone.
 - 7 I cannot put up with these dark walls any longer - I'm going to paint them.
 - 8 In this economic climate, it's hard to get by when you don't earn very much money.

- 2 Find nine more words in the grid all connected with colour. You can find the words horizontally, vertically and diagonally and in any direction.

E	K	O	L	M	J	D	W	H	V	I	C
S	R	I	P	U	R	P	L	E	D	M	O
H	O	D	F	A	V	S	B	P	O	I	L
A	W	E	T	T	O	R	H	O	N	F	O
D	B	R	I	G	H	T	D	I	L	P	U
E	X	S	E	F	J	B	E	G	P	D	R
A	P	A	S	T	E	L	U	R	E	B	B
Q	J	P	E	N	C	R	O	V	N	I	L
T	U	R	Q	U	O	I	S	E	T	Y	I
I	D	I	S	N	K	C	U	O	L	E	N
C	A	M	O	U	F	L	A	G	E	W	D

Grammar

- 3 Circle the most appropriate adverbial in *italics*.

- 1 Car colour is directly linked to safety; *(in fact)* / *in my view*, surveys have shown that white cars have fewer accidents.
- 2 Frankly *Apparently*, if you fill a black tin and a green tin with the same amount of paint, people will think that the black tin is heavier.
- 3 Everyone has some form of artistic talent, but some people are *understandably* / *arguably* more talented than others.
- 4 *Generally speaking* / *As far as I'm concerned*, I don't believe in making children do things they don't want to do.
- 5 You can ask children not to spill paints but, *inevitably* / *as a matter of fact*, they will.

- 4 Complete this paragraph by writing *a*, *an*, *the* or – if you think no article is needed. In some cases, more than one answer is possible.

Making natural dyes

Natural dyes made from 1 ... plant material produce much softer colours than 2 ... commercial dyes and contain no chemicals. If you want to make 3 ... blue dye, for example, all you need to do is cut up 4 ... red cabbage and boil it in water for 30–40 minutes. Let 5 ... mixture stand overnight, then boil it again and remove 6 ... plant material.

Before you dye a garment, 7 ... important process known as fixing ensures that 8 ... colour will not run. 9 ... most common fixers are lemon juice and vinegar. They also need to be boiled with your garment as part of 10 ... dyeing process.

Once you have done this, you should put the garment into 11 ... stainless steel pot with 12 ... dye and simmer 13 ... two together for 30 to 40 minutes (until you get 14 ... right colour). 15 ... more you stir during this time, 16 ... better your dye will fix.

Colour is arguably one of the earliest things that we learn about. As we grow up, we develop preferences for colour, and these are shown in the decoration of our homes, the products we buy and the clothes we wear. As colour plays such a huge role in our domestic lives, it is inevitable that it will also affect how we feel outside of the home, particularly in places such as hospitals and offices.

As a matter of fact, businesses have been aware of the impact of colour on employees for some time. The general view has been that if you work in an office that has too many colours and patterns on the walls, you will end up finding it hard to concentrate. Visitors may also be too taken up with the colours around them to focus on what they are doing.

Interestingly, however, there are some office areas that suit bright colours. For example, creative people often say they can carry out their work better if a room is painted in bold colours. In my university in Thailand, the creative room was painted entirely in yellow to inspire its users to come up with exciting and novel ideas. Students commented that they felt more energised in this type of environment.

While work is about output, hospitals are about the health of patients. Clearly, bright colours would be less welcome on a hospital ward, where patients are trying to recover from operations and illnesses. Here, relaxing shades are needed, such as pastels.

Having said that, some hospital areas are the opposite. Unlike adults, children need some form of entertainment, and walls painted in bright reds and oranges with pictures and posters can achieve that. Similarly, doctors and nurses might welcome brighter surroundings when they are taking a break from work.

As far as I am concerned, there is a direct link between colour and mood. This means that designers should think about who will occupy a building, and decorate its rooms in such a way that the occupants are able to get the best out of their surroundings.

- 3 In the sample answer, the writer uses words and phrases to express his attitude to what he is about to say. Which of the underlined words/phrases does he use to say he thinks something is:

- possibly true?
- obvious?
- his opinion (as opposed to anyone else's)?
- the opinion of most people?
- certain?
- a curious or unexpected point?
- important to emphasise?

► page 112 *Attitude adverbials*

- 4 Work in pairs. IELTS candidates often make mistakes using attitude adverbials. Find and correct the mistakes at the start of these sentences.

- Most important, people should be consulted about their views. Most importantly
- In their opinion, some people totally disagree with this statement for the following reasons.
- In my point of view, people who can still work should be encouraged to work regardless of their age.
- Arguable, the media can play a significant role in conveying this message.
- As the matter of fact, no matter what country you are in, you can always see rivalry between teams.
- As far as I concerned, societies benefit from cultural differences.

Exam advice Writing Task 2

- Analyse the task carefully first. You will lose marks if you misread the question or fail to deal with all parts of the task.
- Brainstorm ideas, make a quick plan and write following your plan.
- Use comment adverbials to indicate your views.

► Key grammar: *Nouns and articles*

- 5 Work in small groups.

- Brainstorm ideas you could put into an essay which expresses the idea that the statement in the task in Exercise 1 is not very true.
- Complete this plan for the answer.

Essay plan

Introduction - my view - statement is not very true

2nd and 3rd paragraphs - reasons why colour is not important in offices

.

.

4th and 5th paragraphs - reasons why colour is not important in hospitals

.

.

Conclusion

- 6 Write your answer in 35 minutes. Write at least 250 words and leave a few minutes to check what you have written.

2 Read the following questions and complete the table.

- 1 Which of the places in the table below have you visited recently?
- 2 What was the predominant colour in these places?
- 3 How far do you think the predominant colours in these places influenced your decisions when it came to buying something: a) a lot b) some c) none at all?

Place	Predominant colour	Influence of colour
1 supermarket	green	
2 department store	red	
3 chemist	white	
4 sports shop	blue	
5 electrical store	blue	
6 book shop	neutral	
7 health food shop	green	
8 restaurant or coffee shop	brown	

3 Read the Writing task below, then use your answers from Questions 1 and 2 above to help you decide whether the statement is (for you) either mainly true or mainly not true.

Colour is a powerful tool that is used to great effect by manufacturers and retail companies when they try to sell us something. In fact, many of the purchasing decisions we make are partly or largely influenced by colour.

How true is this statement? How much does colour influence us when we buy something?

4 Don't forget that in a discursive essay, you should provide one or two counter-arguments that go against your opinion.

For example:

Argument supporting your opinion:

When we go shopping for food such as fruit and vegetables, it is inevitable that we will choose food which looks ripe, and this is where colour is important. For example, we would rarely choose green tomatoes over red ones.

Counter-argument against your opinion:

Having said that, however, there are other factors that are equally important. These might include the size and shape of the fruit, the place it comes from, how it was grown, and of course the price.

Now plan your answer by writing some key notes in the table below.

- Introduction: My view – statement is mainly true / mainly not true
- Second paragraph: The colour of the things you bought and how important the colour was in making your choice.

1 _____

2 _____

3 _____

- Third paragraph: The predominant colour in the places you visited and how those colours influenced your decisions.

1 _____

2 _____

3 _____

- Fourth paragraph: Counter-argument(s) for any one or more of the above points.

1 _____

2 _____

- Conclusion:

5 Using your notes, write your answer in full. You should write at least 250 words, and spend about 35 minutes on the task. Make sure that your view on the subject is clear.

6 When you have finished, check your answer carefully. Make sure:

- you have answered the question properly.
- you have expressed your attitude(s) clearly.
- you have provided one or two counter-arguments.
- your spelling, punctuation and grammar are correct.

1. Speaking → Topics → Sport Health

- Symptoms of coronavirus (watch the video)
- Describe your famous athlete (example_watch the video)
- Describe your favourite kind of sport (the most popular sport in your country)
 - Where is played? in an ice rink
 - Equipment puck, hockey sticks, helmet, net
 - Most important events World Cup, Olympic
 - Terminology and phrases used to talk about the sport puck, hockey stick
 - Sport injuries concussions, wounds by sticks, ligament tears, broken bones

ice hockey

2. Writing

- Go to Writing Task 1 → Future_graphs → Population growth

How would you group the information?

- WB_ex 1, 2, 3 p 23

How would you organize the information?

corona

1 - 2

3

- sore throat
- no fever/cold
- no tiredness
- temperature

3. Reading

WB_pp 20-22

4

4. Vocabulary

WB_ex 1 p 19

- throat pain 5 - 6

- headache - fever

- temperature - temperature > 37

- weakness - dry cough

- tiredness

7

- cough breathing difficulty

8 - 9

- shakiness or tremor

- 38°

- sepsis

10 - 11

- loss of appetite

- abdominal pain

12 - 13

15 - 16

17 - 18

- fever and breathing ease
- mild cough

- cardiac or kidney injury

- secondary infection
- asthma

20 - 22
recovery

admitted & discharged
from hospital

Part 1

Do you like sports? No, I think they're overrated

What are your favorite kinds of sports? I prefer equestrian and swimming. Everything else is too demanding.

Who are your favorite athletes? Which athletes don't you like? Serena Williams? Don't like them in general

Do you like athletes from other countries as well? If so, who?

Do you like sports from other countries as well? If so, what kind? I have a weird soft spot for scottish hal-ho and
Note like throwing a pole

Which areas of sport appeal to you? Soft, consuming and relaxing individual sports.

Which areas of sport would you avoid? I would avoid dangerous team sports, where it is easy to get injured, as well as any violent sport.

Part 2

Describe a sporting activity you like. equestrian

You should say: at school in an equestrian class

- when you first played it
 - who you do it with
 - where you do it
 - and explain why you enjoy doing it.
- to it with a coach and probably other students
on covered court but could probably anywhere
I like the connection with the horse and also that it's meditative

Describe a sportsperson you admire. Serena Williams

You should say:

- who the person is
 - what sport he or she does
 - when did you first hear about this person
- american tennis player
tennis
Drew me like a year ago

and why you admire him or her. She's an activist and also very determined

4 gold medals in
Olympics

Part 3

Which sports are the most popular in your country? Football and hockey

Why do you think sport is important? It helps people keep fit but honestly I think it's overrated

Do you think famous sports people are good role models for children? No. Professional sport is damaging

Do you agree that sports stars earn too much money? Yes. It's a kind of entertainment

What do you think the link between sport and healthy population? A difficult link but not with the professional sport.
It has to be accessible

What do you think is the cause of the increase of people doing sport?

People's consciousness with their bodies mostly

How important is the social aspect of participating in sport? Important as you socialise but that depends on the type of sport
They are alternative or they don't care too much. Driving is also dangerous.

Why do you think it is that some people like to take part in dangerous sports?

What kind of precautions should be taken while doing such sports? helmet, protection

Should people with families and children dependent on them do such sports? Well. Should they drive? Their choice

Do you think women are interested in such sports? Yeah although it's very much not supported.

Part 1

- Are you in good shape? *I am but I don't pay attention to it*
- Do you follow a personal fitness program? ... stick to your program? *Nope I literally don't care*
- In what ways do you try to stay healthy? *I don't*
- Do you take regular vigorous exercise? *No*
- Is it easy to keep fit where you live? *I think it depends mostly on your occupation*
- Have you ever had any habits which you consider to be unhealthy? *Top 5% have been but now not*
- Do you care about healthy eating / healthy foods? *No*
- Are you careful about what you eat? *I'm vegan but not for the health reasons*
- Do you eat much junk food? Do you eat a balanced diet? *I eat whatever I want and sometimes lots of junk food.*

Part 2

Describe something you do to keep healthy.

You should say:

- what this activity is *meditation and breathing exercises*
- when you do it *evenings*
- and how often you do it *try to do every day*

and explain why you think it's a good way to look after your health.

because the worst disease starts!

Describe a time when you were ill.

You should say:

- when this was *last year*
- what your symptoms were *cough, runny nose, chills and fever*
- how long the illness lasted *several days*

and say how it affected your life at the time

I wasn't able to do anything at all

Part 3

What costs are involved when you are ill in your country?

depends on who you are. If you've got medical insurance and a good employer, then nothing

hope, almost none does that and this is the reason we're in the middle of the pandemic

In your experience, are people too quick to take time off work when they're ill?

They are pressured to do so by the society

Do women pay more attention to their health than men?

Definitely

What are the most popular ways of keeping healthy in your country?

Surprise

Do you think most people worry more about their health as they get older?

Honestly no idea but I guess you just need to move healthy food appealing

How can children be encouraged to adopt healthy eating habits?

Probably, but not health

Do you think people have become more health conscious in recent years?

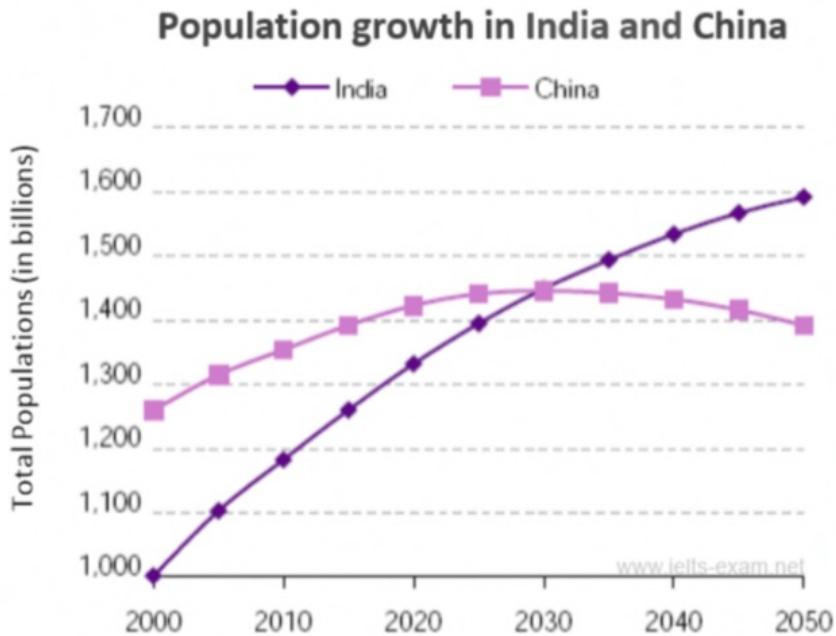
Probably, but not health

Could governments do more to promote healthier lifestyle options? *Could and should, it should be more about accessibility there*

How would you group?

The graph below shows population figures for India and China since the year 2000 and predicted population growth up until 2050.

Summarise the information by selecting and reporting the main features, and make comparisons where relevant.



Source: UN Population Division: Medium variant

1 Upward trends



2000 - 2030

2030 - 2050



India
China

Vocabulary

Verb + noun collocations

- 1 Use the words in the box to complete these extracts. The same word is missing twice from each one. You may need to change its form.

challenge gauge outline overlook
promote yield

- 1 Many nutritionists are ...challenging... the assumption made by some that red meat is bad for you. In fact, they say, it has many positive health benefits. Naturally, those who say we should stop eating it altogether do not like to be challenged this way, and are preparing a robust response.
- 2 It has long been known that taking regular exercise is an excellent way of promoting a sense of well-being and all-round good health. Conversely, leading a sedentary lifestyle has the opposite effect. A new government advertisement is helping to promote awareness of the dangers of this.
- 3 A survey was conducted to ...gauge... people's attitudes to the government's proposed Medical Insurance bill. Most agreed that it will be difficult to ...gauge... the effectiveness of the bill until it has been put into practice.
- 4 The team overlooked one or two major points during the course of its research into the effects of the new drug. They didn't consider, for example, if there would be side effects if taken with another drug. However, nobody could overlook the fact that some of their findings would have important medical implications.
- 5 Recent research into the possible anti-cancer benefits of aspirin has only just begun to ...yield... results. However, pharmaceutical companies who are investing heavily in the research programme are confident that their investment will ...yield... excellent returns in the long run.

- 6 During the interview, the Health Secretary outlined her strategy for improving the National Health Service. However, when the interviewer asked her to outline some of the ways these improvements might be paid for, she seemed unable to answer.

Key vocabulary

- 2 Complete the passage by rearranging the letters in bold to make words and phrases. The first letter of each word is in its correct place.

Last year, I became ill. At first, the 1 stompysm were not especially severe. I had frequent but 2 stroh-ldeiv headaches, my 3 jisnto ached and I felt tired a lot of the time. Soon, however, my 4 ctiondion worsened. The headaches became more severe and I could hardly stay awake during the day. I started missing school, and because of my frequent 5 antesmbseei I started to 6 flal bniehd with my schoolwork. Unfortunately, my doctor couldn't diagnose what was wrong with me, and the painkilling 7 mcioedanti that he 8 pscedrreib failed to 9 reviele my aches and pains. Eventually he sent me to the hospital to 10 ugdnoer a series of tests. The doctors 11 evdatealu the results, and then told me what they had discovered. It turned out that I had developed an intolerance to dairy products like cheese, and that was making me ill! They said that there was no way they could 12 ceru this intolerance, so now I can't eat dairy produce. However, I now feel a lot better.

Reading Section 3

- 1 Quickly read the title and passage below, then choose an appropriate subheading (A–C) to go in the box after the title.



- A Scientific research provides evidence that the more often children and old people exercise, the less likely they are to fall ill.
- B Exercising for up to an hour a day can improve memory and learning for both young and old, scientists have found.
- C Regular exercise benefits us all, whether young or old, but there are hidden dangers, scientists warn.

Scientific research reveals hidden benefits of regular exercise

Subheading:

Concerns that children in developed countries are leading increasingly sedentary lifestyles are growing. Recent research suggests that almost nine in ten children fail to get the 60 minutes of daily exercise which is the minimum recommended for good health, and a third completed less than an hour each week. In most cases, this is because they are spending hours every day glued to televisions, the Internet and games consoles. Alarmingly, there is evidence to suggest that this lack of exercise is not only having a negative physiological effect on them, but is also adversely affecting their academic performance at school.



Psychologist Dr Aric Sigman believes that regular exercise can significantly improve pupils' academic ability, and suggests that access to high-quality PE lessons is just as likely to have a long-term impact on children's education as time spent in conventional classrooms. He also supports the long-held conviction that vigorous physical activity is much better than moderate activity. 'Children should spend at least an hour a day doing some form of vigorous exercise,' he says. And his message to schools and parents is obvious. 'Schools and parents should devise ways of increasing physical activity in and out of school time.' This, he believes, is the key to improved academic performance.

For those who are sceptical about this, and no doubt there are many, he quotes two pieces of research that underline the link between physical activity and brain capacity. One study compared brain capacity and test scores among two groups of nine- and ten-year-olds, one with higher levels of physical fitness than the other. It revealed that fitter pupils had a twelve percent larger brain capacity than their peers, which was associated with better performance in cognitive tests. They were able to complete the test more quickly and got more answers correct. A second study of 1.2 million male teenagers in Sweden was perhaps even more revealing. It found that those who were fit were more likely to have a high IQ and go on to university.

Dr Sigman says, 'Physical activity is thought to help a child's cognitive processes by increasing blood and oxygen flow to the brain. This increases levels of chemicals like endorphin in the brain which decrease stress and improve mood. It also increases growth factors that help create new nerve cells and support the connections between brain cell synapses that are the basis of learning.'

According to other researchers, there is also evidence that suggests regular exercise can increase the size of crucial parts of the brain, and that children who are fit also tend to be better at multi-tasking and performing difficult mental tasks than their unfit friends. Professor Art Kramer, director of the Beckman Institute for Advanced Science and Technology at the University of Illinois, who led the research, said their findings could have important implications for improving children's performance at school. He said it could also be used to help people combat memory loss and retain problem-solving skills in old age.

suggest – idea
offer – specific
propose – serious



'It is a sad fact of ageing that our brain function decreases as we get older,' says Kramer. 'Increasingly, people are also living more sedentary lifestyles. While we know that exercise can have positive effects on cardiovascular disease and diabetes, we have found it can also bring about improvements in cognition and brain function. Aerobic exercise is best for this, so by starting off doing 15 minutes a day and working up to 45 minutes to an hour of continuous exercising, we can see some real improvements in cognition after six months to a year.'

Professor Kramer's team did a lot of neuroimaging work alongside their studies, which provided visual evidence to show that brain networks and structures actually change with exercise. This, they say, is the reason why their aerobically-fit test subjects were found to exhibit superior cognitive control to those who were less fit, and that regular exercise helped to improve memory, attention and an increased ability to multi-task. The hippocampus, that part of the brain involved in memory, of elderly people who exercised regularly for more than six months increased by two percent, effectively reversing brain ageing by one to two years.

Tests carried out on children also yielded some interesting results. One test involved them crossing a 'street' using a virtual reality simulation. Fitter children were better at crossing the street when distracted by music or holding a conversation on a hands-free mobile phone compared to those who were less fit. While both groups tended to walk at the same speed, the children who were less fit often misjudged the speed and distance of the computer-generated vehicles. 'The low fitness kids were just as good at crossing the street when it was the only thing they were doing,' says Kramer. 'If they were listening to music or talking on the headset, they performed badly. They often ended up with the screen going red to show they had been hit. One way to look at it is that fit children think more efficiently and so are better at multi-tasking.'

Professor Kramer presented his findings at the American Association for the Advancement of Science annual meeting in Vancouver, where other research presented showed that reducing the number of calories we consume could help to prevent brain disorders, especially in the elderly. Dr Mark Mattson, a neuroscientist from the National Institute of Ageing in Baltimore found that restricting people's diets to just 500 calories every other day increased production of proteins that are known to protect neurons from damage. 'There is considerable evidence that doing this is not only good for your heart, but is also good for your brain', he said.

2 Read Questions 1–13, underlining key words and phrases, then find the answers in the passage.

Questions 1–5

Do the following statements agree with the claims of the writer?

Write

YES if the statement agrees with the claims of the writer

NO if the statement contradicts the claims of the writer

NOT GIVEN if it is impossible to say what the writer thinks about this

- 1 The possible impact of a sedentary lifestyle on the way children perform in the classroom is true.
- 2 It is only recently that people have discovered exercise is more beneficial for you when you put more effort into it. false
- 3 It is unclear what Dr Aric Sigman thinks schools and parents should do. false
- 4 There are probably a lot of people who disbelieve Dr Sigman's theory. true
- 5 Researchers were surprised to discover a link between levels of fitness in Swedish teenagers and their IQ. false

Questions 6–10

Complete the summary using the list of words, A–I, below.

Dr Sigman believes that when children do physical exercise, they experience less anxiety. Exercise is a result of a chemical change caused by increased blood and oxygen flow to the brain. Other researchers, such as Professor Art Kramer, think there is more that some parts of the brain become bigger, and fit children are better than unfit children at doing complicated exercises that require mental thought. Among other things, these scientific discoveries could be used to benefit the elderly when it comes to fighting memory loss and keeping the skills that allow them to solve problems.

A	ancients	B	elderly	C	performances
E	anxiety	F	exercises	H	possibility
G	discoveries	I	anger	J	proof

Questions 11–13

Choose the correct letter, A, B, C or D.

- 11 Which of the following is true, according to Professor Art Kramer?

- A People become less active as they grow older.
- B Exercising is an effective way of preventing diseases like diabetes.
- C One particular type of exercise is more effective than others.
- D When exercising, you should take short breaks during the exercise period.

- 12 What did Professor Kramer's neuroimaging work show?

- A Exercising physically alters the brain.
- B Unfit people have poor memories.
- C A particular part of the brain becomes more active during exercise.
- D Exercise can reduce ageing of the brain for up to two years.

- 13 What does *doing this* on line 110 refer to in the final paragraph?

- A changing the kinds of food we eat
- B eating no more than 500 calories a day
- C eating foods that are high in protein
- D eating less on certain days

Grammar

Expressing large and small differences

- 1 Complete the second sentence in each pair so that it has a similar meaning to the first sentence.

Use the word in brackets, and one to four other words.

- 1 There is more absenteeism in our London department than in our Birmingham department.
(are)

Absenteeism levelsare higher.... in our London department than in our Birmingham department.

- 2 If you want to lose weight, eating smaller portions of food is not as effective as taking exercise.
(less)

If you want to lose weight, eating smaller portions of food is less effective than taking exercise.

- 3 There are fewer cases of heart-related illnesses since smoking was banned in public.
(aren't)

There aren't as many cases of heart-related illnesses since smoking was banned in public.

- 4 These days I eat less red meat.

(smaller)

These days I eat smaller amounts red meat.

- 5 Improved health and safety regulations in the workplace have resulted in fewer accidents.
(incidence)

Improved health and safety regulations in the workplace have resulted in in incidence of the amount of accidents.

- 6 These days, seeking medical treatment abroad is becoming more popular.

(greater)

These days, a greater amount people are travelling abroad for medical treatment.

- 7 Now that I'm revising for my exams, I have less time for exercise.

(don't)

Now that I'm revising for my exams, I don't have as much time for exercise.



- 2 Each of the sentences above can be emphasised by the addition of one or two words. Insert the words into the sentences. In some cases, more than one answer may be possible.

For example:

There is more absenteeism in our London department far / much / a lot than in our Birmingham department.

Absenteeism levels in our London department are higher in our London department than in our far / much / a lot Birmingham department.

how would you organise?

Writing Task 1

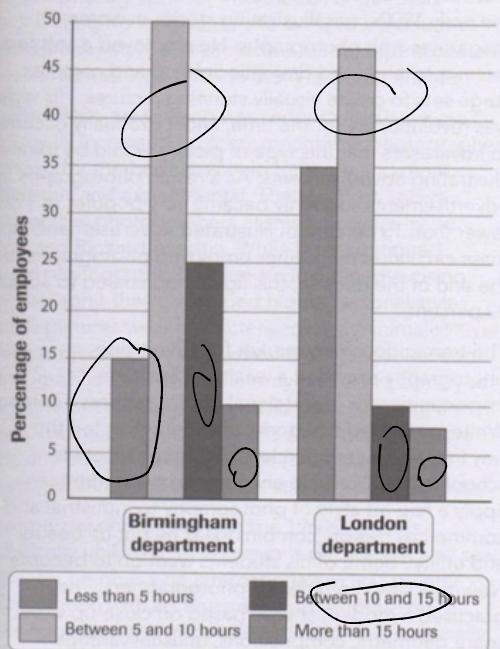
- 1 Look at the Writing task below. Read the question carefully, and highlight the key features in the chart and table.

The chart and table below give information about exercise and absenteeism in two departments of a major company.

Summarise the information by selecting and reporting the main features and make comparisons where relevant.

Hours of exercise per week

(Figures based on 2012 survey)



Absenteeism through illness
(per 1,000 employees): 2012

	Birmingham	London
No absenteeism	380	158
Between 1–5 days a year	378	594
More than 5 days a year	242	248

- 2 Now choose the most appropriate introduction for a sample answer from A-C.

A The chart shows the number of people in two large companies who exercised on a regular basis over the course of a year, while the table shows how many of these people fell ill in the same year.

B The chart shows the amount of exercise taken each week by employees in two departments of a large company. The table shows the number of work days that were missed due to ill health during the course of a year.

C The chart shows the percentage of employees in a major company who exercised for between five and fifteen hours a week during a year. The table shows the results of this exercise on their attendance at work in the same year.

- 3 Decide if these sentences are TRUE or FALSE based on the information in the chart and the table. If they are false, correct them.

- 1 In the chart, there are similarities and differences between the two departments. TRUE / FALSE
- 2 The percentage of employees in the Birmingham department who exercised for less than five hours was less than it was in London. TRUE / FALSE
- 3 There was a big difference in the percentage of employees in both departments who exercised for between five and ten hours a week. TRUE / FALSE
- 4 Almost percentage of employees exercised for between ten and fifteen hours in London than in Birmingham. TRUE / FALSE
- 5 The percentage of employees exercising for more than fifteen hours was almost similar in both departments. TRUE / FALSE
- 6 In London, there were more employees who took time off work due to illness than there were in Birmingham. TRUE / FALSE
- 7 Most employees in the London department who took time off work did so for more than five days a year. TRUE / FALSE
- 8 The number of employees who missed more than five days of work was similar in both departments. TRUE / FALSE

- 4 Now write an answer to the question. You should spend about 20 minutes on this task. Write at least 150 words. Remember to include an introduction (as Exercise 2 above), and don't forget to write a brief overview at the end.

1st high and low both
The more ex → less ill

Future tests

- November 16 – **lexical test**
- November 23 – **reading**
- November 30 – **graph**

1. To get ready for the lexical test go to:

- Topics → Education → education_voc
- Presentation → Color 4 presentation
- Topics → career trends → job_voc
- Complete IELTS _ SB _Unit 3 – text; ex 1, 2 p 35
- Topics → Sport _ health → Sport injuries_voc

2. Writing _Task 1 → pie chart

Complete IELTS _ SB _ ex 6, 7 p 38

3. Complete IELTS_WB_pp 24-26

- set admission criteria (admissions policy)
- apply for admission to

2d

Зачислять	Не зачислять
admit	reject from ...she was rejected from every university she applied for
accept	refuse admission She was refused admission last year. We reserve the right to refuse admission.
give a place	refuse a place All children who are refused a place in...
enroll	
If you enrol or are enrolled at an institution or on a course, you officially join it and pay a fee for it.	

- have the right of appeal against the decision
- drop out, withdraw from бросать учебу
- leave for another university переводиться
- expel, throw out, send down отчислять
- kick out -informal

How to say about about your holidays:

we break up on ... / we go back on ...

Academic qualifications

A bachelor's degree

A first degree awarded by universities; a degree undergraduates do

- a bachelor's degree in smth
- study for a bachelor's degree, do bachelor's degree
- obtain/get/receive/earn a bachelor's degree

Synonyms: undergraduate degree, first degree

He completed his first degree in economics. He received his bachelor's degree in computer science.

He holds a Master's degree in ... / a Bachelor's degree in ...

UK postgraduate study:

A master's degree

[Masters (not master's) is also used in written and spoken English]

- a master's degree in smth (do a master's degree in politics)
- a master's degree at / from somewhere
- a master's degree student
- a master's degree course
- study for/take/obtain/ acquire a master's degree

Students who have completed a first degree are eligible to undertake a postgraduate degree (go on to a postgraduate course) which might be a: master's degrees and the doctorate.

If you study a humanities subject, you get a BA (a bachelor of arts) for your first degree and an MA for your master's. If you study science, you get a BSc (a bachelor of science) for your first degree and an MSc for your master's.

Master of Business Administration (MBA)

An MBA is a specialist business taught master's course that will give you a real step up the managerial ladder. It's the best-known and most popular postgraduate qualification.

Doctorate (PhD)

A PhD, also known as a doctorate, takes three to four years to complete, during which time you'll be working on a single research project. In your final year, you'll be asked to present a thesis / dissertation.

- earn/obtain/complete a PhD

He was awarded his PhD for a thesis on industrial robots.

Types of qualifications

Degree	You receive a degree from a university at the end of your course
Diploma	A diploma is for a shorter course than a degree
Certificate	A certificate is also for a short course

- you can only receive a degree for a full course at university; do not use "diploma" and "certificate" to mean degree
- to confuse you, the piece of paper you receive when you graduate is a certificate

What qualifications do I need for postgraduate study?

- A first degree is required
- The specific entry requirement for each course of study are listed on websites.
- Results of IELTS or TOEFL. Applicants must have a minimum IELTS score of 7.

Academic Titles

UK	US
Undergraduate	Undergraduate
Post-Graduate	Graduate
Post-Doc	Post-Doc
Lecturer	Assistant Professor
Reader / Senior Lecturer	Associate Professor
Professor	Full Professor

Finance

A **scholarship** is won for academic merit.

Almost all British undergraduates have student **loans** and they need to repay when they start earning.

Typically a **grant** is awarded either for a particular project.

Tuition (fee) / the fees - a sum of money charged for teaching or instruction by a school, college, or university.

Course description

The **syllabus** is described as the summary of the topics covered or units to be taught in the particular subject. Syllabus is set for a particular subject.

Curriculum refers to the overall content, taught in an educational system or a course. ... Syllabus is descriptive in nature, but the curriculum is prescriptive.

Example:

Course lasts for ... years full-time.

The course is a (180)-credit course, consisting of (120) credits of core and elective modules plus a (60)-credit dissertation module.

Core modules are obligatory. Elective modules are optional.

The course covers (all the major aspects of ...).

Elective modules only run if a minimum of (ten) students enroll.

The modules consist of mixture of lectures, seminars, workshop and tutorials.

A (3000) - word assignment must be submitted for (A word limit is ...)

Elective modules are assessed through essays, projects and portfolios (a collection of documents that represent person's work).

Students must achieve a pass grade in all core modules + ... credits in elective modules.

Students who achieve a grade average of (8) or more may be eligible for a distinction. (a special mark given to students who produce work of an excellent standard).

Why We Use Color

Color

Color is a powerful communication tool. It can group information into categories and show meaningful relationships between data.

We use color to better communicate with our audiences. It can seize an audience's attention and direct people's eyes to a specific point in space. It can also create a mood or tone that evokes emotions in your audience. Poorly chosen colors distract from your presentation and can make your content unreadable. In contrast, well-chosen colors help illuminate and emphasize or enhance your message and make your presentation more compelling and memorable.

By changing nothing else but color settings, you can greatly affect the tone of your presentation and influence which visual elements your audience members pay attention to the most.



Color Gone Wild

Many scientists choose to communicate with colors in a way that makes their slides and posters look like a trip to the circus. They probably choose these colors thinking that they would excite their audience or create a playful atmosphere. In reality, poor color choices are **distracting, overwhelming**, and in the worst cases make presentations **unintelligible**.

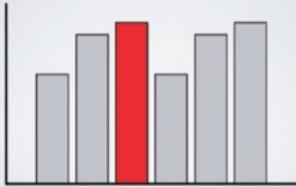
unintelligible

Don't let your
colors
distract from your
message....

Don't let your colors
overwhelm your data



Instead, use color
to emphasize your data



Describing Color

Most computer applications assume that you already know the vocabulary of color.

Understanding these terms will help you make informed decisions when choosing colors for your presentations.

Hue is a color's purest identity, independent of other values such as lightness, darkness, and saturation. Hues are what come to mind when you think of colors in their purest, most basic form.

Primary colors, red, yellow, and blue, are the three colors that cannot be created by mixing any other colors.

Secondary colors result from the mixing of two of the primary colors.

Red + Yellow = Orange

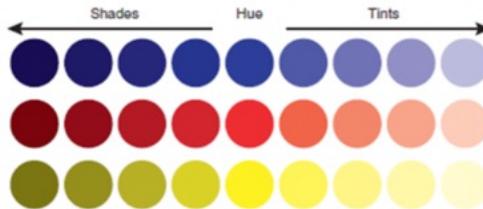
Yellow + Blue = Green

Blue + Red = Purple

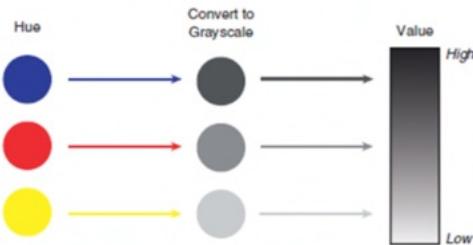
Intermediate colors result from mixing a primary and secondary color, or multiple secondary colors.

Shade is the amount of black added to a hue.

Tint is the amount of white added to a hue.

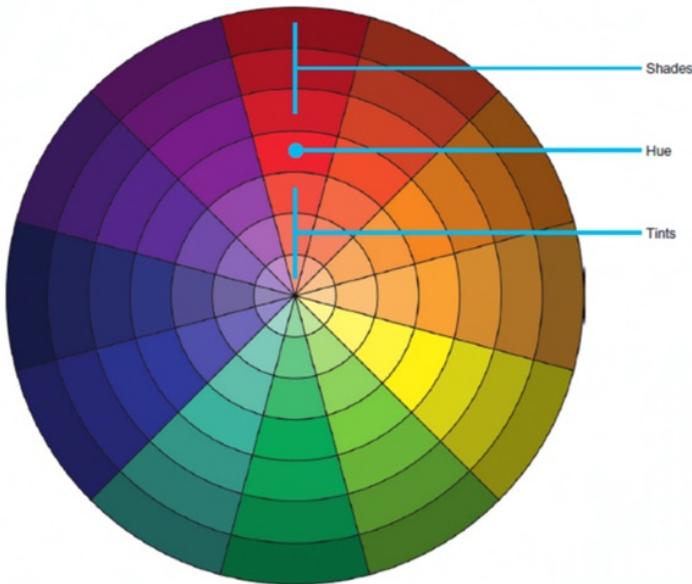


Value refers to the inherent lightness or darkness of a color. The value of different colors can be compared relative to a black-and-white gradient. Black has the highest value and white has the lowest value. The values of colors become important when choosing color combinations that contrast well with each other.



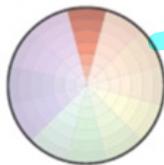
Saturation refers to the degree of hue in a color. A fully saturated color is a true hue, while colors with less saturation look more and more gray. When you convert colors to grayscale, the colors are completely de-saturated.

A color wheel depicts the full color spectrum and helps show how different colors relate to each other. The three primary hues (red, yellow, and blue) are spaced evenly apart. Secondary and intermediate colors are spaced in between the primary colors. The center of the wheel has increasing tints while the outside of the wheel has increasing shades.



Choosing Color Combinations Using a Color Wheel

When you need to use multiple colors for graphs or diagrams, a color wheel can help you choose combinations that visually emphasize your message.



Monochromatic: Only one hue in various shades or tints. The advantage to this strategy is that it creates a consistent, unified look. Even though data may be categorized differently (as in different bars on a chart), it seems representative of a uniform, larger category.

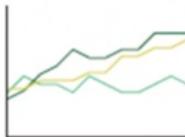


Complementary: Two hues on opposite sides of a color wheel. This strategy enhances the difference between two categories and makes them seem like opposites.





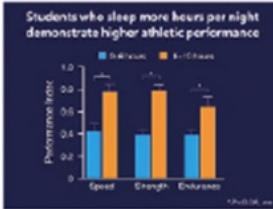
Analogous: Two or three hues that are relatively close together on the color wheel. This strategy combines elements of both the monochromatic and complementary strategies, using multiple colors while also achieving a consistent, harmonious look.



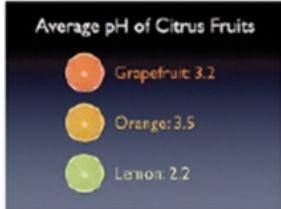
Monochromatic



Complementary



Analogous



The colors you choose to represent your data and ideas will affect the tone of your presentation and how your audience perceives relationships.

monochromatic
analogous
complementary

Warm and Cool Colors

Colors on opposite sides of the color wheel are often described as “warm” or “cool.” Warm colors consist of pinks, reds, oranges, yellows, and browns, and are associated with energy, vitality, excitement, and fun. Cool colors are made up of greens, blues, and purples, and are associated with peace, serenity, and nature.



Warm colors can overpower cool colors. People perceive warm colors as being in the foreground and cool colors as being in the background. Therefore, choose warm colors to highlight the data that you really want to emphasize.



The red line appears in the foreground even though it is placed behind the blue line.



It is easier to notice the orange bars' increasing value from left to right than the blue bars' decreasing value.



The red data points stand out even though the green data points show more of a trend.