READING PASSAGE 1

You should spend about 20 minutes on Questions 1-13, which are based on Reading Passage 1.

MENTAL GYMNASTICS

John McCrone explains how mental exercise is being used to boost corporate brainpower

The working day has just started at the head office of Barclays Bank in London. Seventeen staff are helping themselves to a buffet breakfast as young psychologist Sebastian Bailey enters the room to begin the morning's training session. But this is no ordinary training session. He is here, not to sharpen the, finance or management skills, but to exercise their brains. Today's workout, organised by a company called Mind Gym, is entitled 'Having Presence'.

What follows is an intense 90-minute session, in which this rather abstract concept is broken down into a concrete set of feelings, mental tricks and behaviours. At one point, the bankers are instructed to shut their eyes and visualise themselves filling the room and then the building. They finish by walking around the room acting out various levels of 'presence', from low-key to over-the-top.

Similar mental workouts are happening in corporate seminar rooms around the globe. Mind Gym alone offers some 70 different sessions, including ones on mental stamina and creativity for logical thinkers. Other outfits draw more directly on the exercise analogy, offering 'neurobics' courses with names like 'brain sets' and 'cerebral fitness'. Whatever the style, the companies' sales pitch is similar: 'Follow our routines,' they tell us, 'to shape and sculpt your brain or mind, just as you might tone and train your body.' Nearly all claim that their mental workouts draw on serious research into how the brain works.

Gessner Geyer, from Brainergy of Cambridge, Massachusetts, puts it like this: 'Studies have shown that mental exercise can cause changes in brain anatomy and brain chemistry, which promote increased mental efficiency and clarity. The neuroscience behind this is cutting-edge.' Mind Gym trades on a quote from Susan Greenfield, one of Britain's best-known neuroscientists: 'It's a bit like going to the gym: if you exercise your brain, it will grow.'

In practice, the training can seem mundane. Take 'Creativity for logical thinkers', one of Mind Gym's eight different creativity workouts. One of the mental strategies taught is to make a sensible suggestion, then pose its opposite. Asked to spend five minutes inventing a new pizza, a group soon comes up with no topping, sweet topping, cold topping, price based on time of day, Flat-rate prices and so on.

The trick is simple, but Bailey points out how few such tricks people have to call upon when suddenly asked to be creative: 'They tend to just label themselves as uncreative, realising that there are techniques every creative person employs.' Bailey says the aim is to introduce people to half a dozen such strategies, so that what at first seems like a dauntingly abstract mental task becomes a set of concrete, learnable behaviours. He admits this is not a short cut to genius. Neurologically, some people do start with quicker circuits or greater handling capacity. However, the right kind of training he believes can dramatically increase brain efficiency.

Though it is hard to prove that the training itself is effective - how do you measure a change in

creativity levels, or memory skills? - staff certainly report feeling that such classes have opened their eyes. For example, they may have felt the only way to solve a difficult problem is to bang away at it as hard as possible. Then they learn that creative thinkers advise taking a break and letting ideas incubate. A simple tactic, yet one rarely taught in normal life. Which, according to educational psychologist Guy Claxton, Mind Gym's academic adviser, is exactly the point.

Claxton, who dismisses most neurological approaches as 'neuro-babble', insists creativity, mental flexibility, even motivation are all thought habits that can be learned. The problem, he claims, is that most of us never receive proper training. We develop mental strategies for tackling tasks haphazardly and soon lose sight of the very thought habits we are relying upon. Claxton believes we must return our thought patterns to a conscious level, becoming aware of how we usually think. Only then can we start to practise better thought patterns, until eventually these become our new habits.

Russian psychologists Lev Vygotsky and Aleksandr Luria put forward similar arguments in the 1930s and various attempts have been made to put them into practice. The business world familiar with both 'better thinking' gurus such as Edward de Bono and Tony Bunn, and habit-breaking techniques such as neurolinguistic programming. Modern companies will seize on anything that claims to create flexible, bright thinkers, without scrutinising the facts. But are neurobic workouts underpinned by scientific fact?

Certainly the brain adapts to demands placed on it. Neurologists have proved time and again that people who lose brain cells suddenly during a stroke often sprout new r the connections to compensate - especially if they undergo therapy. Rats raised in cages with and toys sprout more neural connections than rats raised in bare cages. Brain scans suggest that people use more of their grey matter to carry out new tasks than well-rehearsed ones.

So the general basis of neurobics looks sound: the brain really is inherently alterable or 'plastic'. The problem is in the specifics. Qualities such as creativity are too subjective to rate, forcing psychologists to rely on the easy-to-score spatial and verbal reasoning tasks involved in IQ tests. This creates a problem for neurobics. Time and again, psychologists have found that neither mental exercises nor any other type of brain-boosting regime, including so-called smart pills designed to improve blood flow to the brain, reliably improve our ability to do these basic tasks.

Nevertheless, Claxton for one believes there is no reason why schools and universities should not spend more time teaching analysis and problem-solving techniques, rather than trying to stuff heads with facts and hoping that effective thought habits are somehow absorbed by osmosis.

Questions 1 - 5

Do the following statements agree with the claims of the writer in Reading Passage 1?

In boxes 1-5 on your answer sheet, 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 **Bailey asks his participants to imagine they are buildings.**

2 **Brain training is used by business people all over the world.**

3 **The organisations that sell mental exercise all promote it in much the same way.**

4 **Companies offering mental workouts say that their practice has a scientific basis.**

5 **Susan Greenfield was one of the founders of Mind Gym.**

Questions 6 - 13

Look at the following statements (Questions 6-13) and the list of people below.

Match each statement with the correct person, A, B, C or D.

Write the correct letter, A, B, C or D, in boxes 6-13 on your answer sheet.

NB You may use any letter more than once.

6 **People rarely take time to stand back from a problem before taking a decision.**

7 **Most people underestimate their potential to be creative.**

8 **Most ways of looking at mental development are unconvincing.**

9 **Exercising the brain can be compared to exercising the body.**

10 **Training can actually modify the structure of the brain.**

11 **Effective mental training begins with a close examination of how we ordinarily think**

12 **People who think that they are uncreative may be unaware of techniques used by creative people**

13 **Educators should place greater emphasis on developing students' thinking skills.**

List of People

A Sebastian Bailey

B Gessner Geyer

C SusanGreenfield

D Guy Claxton