

## Academic Reading test 59

### Section 1

#### Video Games' Unexpected Benefits to Human Brain

**A .** James Paul Gee, professor of education at the University of Wisconsin-Madison, played his first video game years ago when his six-year-old son Sam was playing Pajama Sam: No Need to Hide when it's Dark Outside. He wanted to play the game so he could support Sam's problem-solving. Though Pajama Sam is not an "educational game", it is replete with the types of problems psychologists study when they study thinking and learning. When he saw how well the game held Sam's attention, he wondered what sort of beast a more mature video game might be.

**B .** Video and computer games, like many other popular, entertaining and addicting kid's activities, are looked down upon by many parents as time-wasters, and worse, parents think that these games rot the brain. Violent video games are readily blamed by the media and some experts as the reason why some youth become violent or commit extreme anti-social behavior. Recent content analyses of video games show that as many as 89% of games contain some violent content, but there is no form of aggressive content 70% of popular games. Many scientists and psychologists, like James Paul Gee, find that video games actually have many benefits- the main one being making kids smart. Video games may actually teach kids high-level thinking skills that they will need in the future.

**C .** " Video games change your brain," according to University of Wisconsin psychologist Shawn Green. Video games change the brain's physical structure the same way as do learning to read, playing the piano, or navigating using a map. Much like exercise can build muscle, the powerful combination of concentration and rewarding surges of neurotransmitters like dopamine, which strengthens neural circuits, can build the player's brain.

**D .** Video games give your child's brain a real workout. In many video games, the skills required to win involve abstract and high-level thinking. These skills are not even taught at school. Some of the mental skills trained by video games include: following instructions, problem-solving, logic, hand-eye coordination, fine motor, and spatial skills. Research also suggests that people can learn iconic, spatial, and visual attention skills from video games are related to better surgical skills. Jacob Benjamin, a doctor from Beth Israel Medical Center NY, found a direct link between skills at video gaming and skill at keyhole or laparoscopic surgery. Also, a reason given by experts as to why fighter pilots of today are more skillful is that this generation's pilots are being weaned on video games.

**E .** The players learn to manage resources that are limited and decide the best use of resources, the same way as in real life. In strategy games, for instance, while developing a city, an unexpected surprise like an enemy might emerge. This forces the player to be flexible and quickly change tactics. Sometimes the player does this almost every second

of the game giving the brain a real workout. According to researchers at the University of Rochester, led by Daphne Bavelier, a cognitive scientist, games simulating stressful events such as those found in battle or action games could be a training tool for real-world situations. The study suggests that playing action video games primes the brain to make quick decisions. Video games can be used to train soldiers and surgeons, according to the study. Steven Johnson, author of *Everything Bad is Good For You: How Today's Popular Culture*, says gamers must deal with immediate problems while keeping their long-term goals on their horizon. Young gamers force themselves to read to get instructions, follow storylines of games, and get information from the game texts.

**F .** James Paul Gee, professor of education at the University of Wisconsin- Madison, says that playing a video game is similar to working through a science problem. Like students in a laboratory, gamers much come up with a hypothesis. For example, players in some games constantly try out combinations of weapons and powers to use to defeat an enemy. If one does not work, they change hypothesis and try the next one. video games are goal-driven experiences, says Gee, which is fundamental to learning. Also, using math skills is important to win in many games that involve quantitative analysis like managing resources. In higher levels of a game, players usually fail the first time around, but they keep on trying until they succeed and move on to the next level.

**G .** Many games are played online and involve cooperation with other online players in order to win. Video and computer games also help children gain self- confidence and many games are based on history, city building, and governance and so on. Such games indirectly teach children about aspects of life on earth.

**H .** In an upcoming study in the journal *Current Biology*, authors Daphne Bavelier, Alexandre Pouget, and C. Shawn Green report that video games could provide a potent training regimen for speeding up reactions in many types of real-life situations. The researchers tested dozens of 18 to 25-year-olds who were not ordinarily video game players. They split the subjects into two groups. One group played 50 hours of the fastpaced action video games "Call of Duty 2" and " Unreal Tournament," and the other group played 50 hours of the slow-moving strategy game " The Sims 2. After this training period, all of the subjects were asked to make quick decisions in several tasks designed by the researchers. The action game players were up to 25 percent faster at coming to a conclusion and answered just as many questions correctly as their strategy game playing peers.

## Questions 1-4

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

Write your answers in boxes **1-4** on your answer sheet.

- 1 .** What is the main purpose of paragraph ONE?
  - A .** Introduction of professor James Paul Gee.
  - B .** Introduction of the video game: Pajamas Sam.
  - C .** Introduction of types of video games.
  - D .** Introduction to the background of this passage.
  
- 2 .** What does the author want to express in the second paragraph?
  - A .** Video games are widely considered harmful to children's brain.
  - B .** Most violent video games are the direct reason of Juvenile delinquency.
  - C .** Even there is a certain proportion of violence in most video games; scientists and psychologists see its benefits of children's intellectual abilities.
  - D .** Many parents regard video games as time- wasters, which rot children's brain.
  
- 3 .** What is correctly mentioned in paragraph four?
  - A.** Some schools use video games to teach students abstract and high-level thinking.
  - B.** Video games improve brain ability in various aspects
  - C.** Some surgeons have better skills because they play more video games.
  - D.** Skillful fighter pilots in this generation love to play video games.
  
- 4.** What is the expectation of the experiment the three researchers did?
  - A.** Gamers have to make the best use of the limited resource.
  - B.** Gamers with better math skills will win in the end.
  - C.** Strategy game players have better ability to make quick decisions.
  - D.** Video games help increase the speed of players reaction effectively.

**Questions 5-8**

Do the following statements agree with the information given in Reading Passage 1?

in boxes **5-8** on your answer sheet, write

- True**                      If the statement is true.
- False**                     If the statement is false
- Not Given**              If the information is not given in the passage.

5. Most video games are popular because of their violent content.
6. The action game players minimized the percentage of making mistakes in the experiment.
7. It would be a good idea for schools to apply video games in their classrooms.
8. Those people who are addicted to video games have lots of dopamine in their brains.

**Questions 9-13**

Use the information in the passage to match the people ( **listed A-F**) with opinions or deeds below. Write the appropriate letters **A-F** in boxes **9-13** on your answer sheet.

- A. The writer's opinion
- B. James Paul Gee
- C. Shawn Green
- D. Daphne Bavelier
- E. Steven Johnson
- F. Jacob Benjamin

9. Video games as other daily life skills alter the brain's physical structure.

10. A brain is ready to make decisions without hesitation when players are immersed in playing stressful games.
11. The purpose-motivated experience that video games offer plays an essential role in studying.
12. Players are good at tackling prompt issues with future intentions.
13. It helps children broaden their horizon in many aspects and gain self-confidence.

## Section-2

### A new Ice Age

**A.** William Curry is a serious, sober climate scientist, not an art critic. But he has spent a lot of time perusing Emanuel Gottlieb Leutze's famous painting "George Washington Crossing Delaware," which depicts a boatload of colonial American soldiers making their way to attack English and Hessian troops the day after Christmas in 1776. "Most people think these other guys in the boat are rowing, but they are actually pushing the ice away", says Curry, tapping his finger on a reproduction of the painting. Sure enough, the lead oarsman is bashing the frozen river with his boot. "I grew up in Philadelphia. The place in this painting is 30 minutes away by car. I can tell you, this kind of thing just doesn't happen anymore."

**B.** But it may again soon. And ice-choked scenes, similar to those immortalized by the 16th-century Flemish painter Pieter Brueghel the Elder, may also return to Europe. His works, including the 1565 masterpiece "Hunters in the snow," make the now-temperate European landscapes look more like Lapland. Such frigid settings were commonplace during a period dating roughly from 1300 to 1850 because much of North America and Europe was in the throes of a little ice age. And now there is mounting evidence that the chill could return. A growing number of scientists believe conditions are ripe for another prolonged cooldown, or small ice age. While no one is predicting a brutal ice sheet like the one that covered the Northern Hemisphere with glaciers about 12000 years ago, the next cooling trend could drop average temperatures 5 degrees in the Northeast, northeast Europe, and northern Asia.

**C.** "It could happen in 10 years," says Terrence Joyce, who chairs the Woods Hole Physical Oceanography Department. "Once it does, it can take hundreds of years to reverse." And he is alarmed that Americans have yet to take the threat seriously.

**D.** A drop of 5 to 10 degrees entails much more than simply bumping up the thermostat and carrying on. Both economically and ecologically, such quick, persistent chilling could have devastating consequences. A 2002 report titled "Abrupt Climate Change: Inevitable Surprises," produced by the National Academy of Sciences, pegged the cost from agricultural losses alone at \$ 100 billion to \$ 250 billion while also predicting that damage to ecologies could be vast and incalculable. A grim sampler: disappearing forests, increased housing expenses, dwindling freshwater, lower crop yields, and accelerated species extinctions.

**E.** Political changes since the last ice age could make survival far more difficult for the world's poor. During previous cooling periods, whole tribes simply picked up and moved south, but that option doesn't work in the modern, tense world of closed borders. "To the extent that abrupt climate change may cause rapid and extensive changes of fortune for those who live off the land, the inability to migrate may remove one of the major safety nets for distressed people," says the report.

**F.** But first things first. Isn't the earth actually warning? Indeed it is, says Joyce. In his cluttered office, full of soft light from the foggy Cape Cod morning, he explains how such warming could actually be the surprising culprit of the next mini-ice age. The paradox is a result of the appearance over the past 30 years in the North Atlantic of huge rivers of freshwater the equivalent of a 10-foot thick layer mixed into the salty sea. No one is certain where the fresh torrents are coming from, but a prime suspect is melting Arctic ice, caused by a buildup of carbon dioxide in the atmosphere that traps solar energy.

**G.** The freshwater trend is major news in ocean-science circles. Bob Dickson, a British oceanographer who sounded an alarm at a February conference in Honolulu, has termed the drop in salinity and temperature in the Labrador Sea a body of water between north-eastern Canada and Greenland that adjoins the Atlantic " arguably the largest full- depth changes observed in the modern instrumental oceanographic record."

**H.** The trend could cause a little ice age by subverting the northern penetration of Gulf Stream waters. Normally, the Gulf stream, laden with heat soaked up in the tropics, meanders up the east coasts of the United States and Canada. As it flows northward, the stream surrenders heat to the air. Because the prevailing North Atlantic winds blow eastward, a lot of the heat wafts to Europe. That's why scientists believe winter temperatures on the Continent are as much as 36 degrees Fahrenheit warmer than those in North America at the same latitude. Frigid Boston, for example, lies at almost precisely the same latitude as balmy Rome. And some scientists say the heat also warms Americans and Canadians. " It's a real mistake to think of this solely as a European phenomenon," says Joyce.

**I.** Having given up its heat to the air, the now-cooler water becomes denser and sinks into the North Atlantic by a mile or more in a process oceanographers call thermohaline circulation. This massive column of cascading cold is the main engine powering a deepwater current called the Great Ocean Conveyor that snakes through all the world's oceans. But as the North Atlantic fills with freshwater, it grows less dense, making the waters carried northward by the Gulf Stream less able to sink. The new mass of relatively freshwater sits on top of the ocean like a big thermal blanket, threatening the thermohaline circulation. That, in turn, could make the Gulf Stream slow or veer Southward. At some point, the whole system could simply shut down, and do so quickly. "There is increasing evidence that we are getting closer to a transition point, from which we can jump to a new state. Small changes, such as a couple of years of heavy precipitation or melting ice at high latitudes, could yield a big response, " says Joyce.

**J.** "You have all this freshwater sitting at high latitudes, and it can literally take hundreds of years to get rid of it," Joyce says. So while the globe as a whole gets warmer by tiny fractions of 1 degree Fahrenheit annually, the North Atlantic region could, in a decade, get up to 10 degrees colder. What worries researchers at Woods Hole is that history is on the side of a rapid shutdown. They know it has happened before.

**Questions 14-16** Choose the correct letter, **A, B, C** or **D**.

Write the correct letter in box **14-16** on your answer sheet.

**14.** The writer mentions the paintings in the first two paragraphs to illustrate

- A.** that the two paintings are immortalized.
- B.** people's different opinions.
- C.** a possible climate change happened 12,000 years ago.
- D.** the possibility of a small ice age in the future.

**15.** Why is it hard for the poor to survive the next cooling period?

- A.** because people can't remove themselves from the major safety nets.
- B.** because politicians are voting against the movement.
- C.** because migration seems impossible for the reason of closed borders.
- D.** because climate changes accelerate the process of moving Southward.

**16.** Why is the winter temperature in continental Europe higher than that in North America?

- A.** because heat is brought to Europe with the wind flow.
- B.** because the eastward movement of freshwater continues.
- C.** because Boston and Rome are at the same latitude.
- D.** because the ice formation happens in North America.

**Questions 17-21**

Match each statement (**Questions 17-21**) on your answer sheet.

**NB** You may use any letter more than once.

17. A quick climate change wreaks great disruption.
18. Most Americans are not prepared for the next cooling period.
19. A case of a ocean water is mentioned in a conference.
20. Global warming urges the appearance of the ice age.
21. The temperature will not drop to the same degree as it used to be.

**List of People**

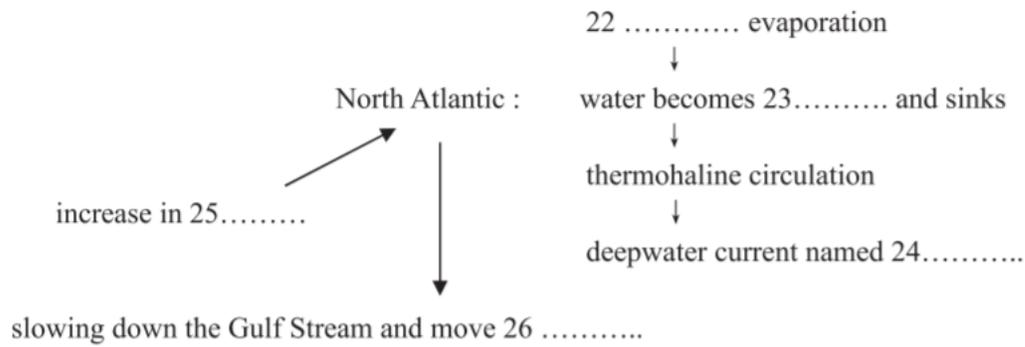
- A. Bob Dickson
- B. Terrence Joyce
- C William Curry
- D. National Academy Of Science

**Questions 22-26**

Complete the flow chart below.

Choose **NO MORE THAN THREE WORDS** from the passage for each answer.

write your answers in boxes **22-26** on your answer sheet.



### Section-3

## Mungo Man

A. Fifty thousand years ago, a lush landscape greeted the first Australians making their way towards the south-east of the continent. Temperatures were cooler than now. Megafauna-giant prehistoric animals such as marsupial lions, goannas and the rhinoceros-sized diprotodon-were abundant. The Lake Mungo remains are three prominent sets of fossils which tell the archeologists the story: Mungo Man lived around the shores of Lake Mungo with his family. When he was young Mungo Man lost his two lower canine teeth, possibly knocked out in a ritual. He grew into a man nearly 1.7m in height. Over the years his molar teeth became worn and scratches, possibly from eating a gritty diet or stripping the long leaves of water reeds with his teeth to make twine. As Mungo Man grew older his bones ached with arthritis, especially his right elbow, which was so damaged that bits of bone were completely worn out or broken away. Such wear and tear are typical of people who have used a woomera to throw spears over many years. Mungo Man reached a good age for the hard life of a hunter-gatherer and died when he was about 50. His family mourned for him, and carefully buried him in the lunette, on his back with his hands crossed in his lap, and sprinkled with red ochre. Mungo Man is the oldest known example in the world of such a ritual.

**B.** This treasure-trove of history was found by the University of Melbourne geologist Professor Jim Bowler in 1969. He was searching for ancient lakes and came across the charred remains of Mungo Lady, who had been cremated. And in 1974, he found a second complete skeleton, Mungo Man, buried 300 meters away. Using carbon-dating, a technique only reliable to around 40,000 years old. The comprehensive study of 25 different sediment layers at Mungo concludes that both graves are 40,000 years old.

**C.** This is much younger than the 62,000 years Mungo Man was attributed within 1999 by a team led by Professor Alan Thorne, of the Australian National University. The modern-day story of the science of Mungo also has its fair share of rivalry. Because Thorne is the country's leading opponent of the Out of Africa theory-that Homo sapiens had a single place of origin."Dr, Alan Thorne supports the multi-regional explanation( that modern humans arose simultaneously in Africa, Europe, and Asia from one of our predecessors, Homo erectus, who left Africa more than 1.5 million years ago.) If Mungo man was descended from a person who had left Africa in the Past 200000 years, Thorne argues, then his mitochondrial DNA should have looked like that of the other samples."

**D.** However, out of Africa supporters are not about to let go of their beliefs because of the Australian research, Professor Chris Stringer, from the Natural History Museum in London, UK, said that the research community would want to see the work repeated in other labs before major conclusions were drawn from the Australian research. But even assuming the DNA sequences were correct, Professor Stringer said it could just mean that there was much more genetic diversity in the past than was previously realised. There is evidence here that the ancestry of these Australian fossils goes back a million or two million years. "It's much more likely that modern humans came out of Africa." For Bowler, these debates are irritating speculative distractions from the study's main findings. At 40,000 years old, Mungo Man and Mungo Lady remain Australia's oldest human burials and the earliest evidence on Earth of cultural sophistication, he says. Modern humans had not even reached North America by this time. In 1997, Paddbo's research group recovered a mtDNA fingerprint from the Feldholder Neanderthal skeleton uncovered in Germany in 1865 the first Neanderthal remains ever found.

**E.** In its 1999 study, Thorne's team used three techniques to date Mungo Man at 62000 years old, and it stands by its figures. It dated bone, teeth enamel and some sand. Bowler has strongly challenged the results ever since. Dating human bones is "notoriously unreliable", he says. As well, the sand sample Thorne's group dated was taken hundreds of meters from the burial site. " You don't have to be a gravedigger... to realize the age of the sand is not the same as the age of the grave," says Bowler

**F.** Thorne counters that Bowler's team used one dating technique, while his used three. Best practice is to have at least two methods produce the same result. A Thorne team member, Professor Rainer Grun, says the fact that the latest results were consistent between laboratories doesn't mean they are absolutely correct. We now have two data sets that are contradictory. I do not have a plausible explanation." Now, however, Thorne says the age of Mungo Man is irrelevant to this origins debate. Recent fossils find show modern humans were in China 110000 years ago." So he has got a long time to turn up in Australia. It doesn't matter if he is 40,000 or 60,000 years old.

**G.** Dr. Tim Flannery, a proponent of the controversial theory that Australia's megafauna was wiped out 46000 years ago in a "blitzkrieg" of hunting by the arriving people, also claims the new Roberts of Wollongong University, along with Flannery, director of the South Australian Museum, published research on their blitzkrieg theory. They dated 28 sites across the continent, arguing on their analysis showed the Mungo dates support this view. In 2001 a member of bowler's team, Dr. Richard megafauna died out suddenly 46000 years ago. Flannery praises the Bowler team's research on Mungo Man as " the most thorough and rigorous dating" of ancient humans arrived remains. He says the finding that humans arrived at Lake Mungo between 46,000 and 50,000 years ago was a critical time in Australia's history. There is no evidence of a dramatic change then, he says. It's my view that humans arrived and extinction took place in almost the same geological instant."

**H.** Bowler, however, is skeptical of Flannery's theory and says the Mungo study provides no definitive new evidence to support it He argues that climate change at 40,000 years ago was more intense than had been previously realized and could have played a role in the megafauna's demise. " To blame the earliest Australians for their complete extinction is drawing a long bow."

### Questions 27-34

You should spend about 20minutes on **Questions 27-40**, which are based on reading passage 3 below

Use the information in the passage to match the people (listed A-F) with opinions or deeds below. Write the appropriate letters A-F in boxes 27-34 on your answer sheet.

**NB** you may use any letter more than once.

- A. Jim Bowler
- B. Alan Thorne
- C. Pddbo
- D. Tim Flannery
- E. Chris Stringer
- F. Rainer Grun.

27. He was searching for ancient lakes and came across the charred remains of Mungo Lady, who had been cremated.
28. The professor who hold a skeptical attitude towards reliability for DNA analysis on some fossils.
29. Professor whose determination of the age of Mungo Man to be much younger than the former result which is older than the 62,000 years.
30. Determining the age of Mungo Man has little to do with controversy for the origins of Australians.
31. Research group who recovered a biological proof of the first Neanderthal found in Europe.
32. A supporter of the idea that Australia's megafauna was extinct due to the hunting by the ancient human beings.
33. Instead of keep arguing a single source origin, multiregional explanation has been raised.
34. Climate change rather than prehistoric human activities resulted in megafauna's extinction.

**Questions 35-40** Do the following statements agree with the information given in Reading Passage 3? In boxes, **35-40** on your answer sheet, Write

- True**                      If the statement is true.
- False**                     If the statement is false
- Not Given**                If the information is not given in the passage.

35. The Lake Mungo remains to offer the archeologists the evidence of graphic illustration of human activities around.
36. In Lake Mungo remains, weapons were found used by the Mungo.
37. Mungo Man is one of the oldest known archeological evidence in the world of cultural sophistication such as a burying ritual.
38. Mungo man and woman's skeletons were uncovered in the same year.
39. There is controversy among scientists about the origin of the oldest Homo sapiens.
- 40 Out of Africa supporters have criticized Australian professors for using outmoded research method

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