

UNIT 6- BRAIN SCIENCE



Reading I- How Can You Learn Faster and Better?

PREVIEW THE READING

A. Quick Discussion

Discuss these questions with your classmates.

1. If you could improve the way that you learn, what would you choose to improve?
2. Some students seem to learn more easily than others. Why do you think this is?
3. Look at the photo. What are the people doing? Do you learn better in groups or by yourself?

B. Vocabulary Here are some words from Reading 1. Read their definitions. Then complete each sentence.

automatically (*adverb*) done in a way (like a machine) that does not require human control

benefit (*verb*) to be helped by something or to help someone

comfort zone (*noun phrase*) a place or situation in which a person feels comfortable and not stressed

decrease (*verb*) to become or to make something smaller or less

interact (*verb*) to communicate with someone or react to something

pace (*noun*) the speed at which you do something or at which something happens

process (*verb*) to deal with something according to a particular set of actions

provide (*verb*) to give or supply something to somebody

skip (*verb*) to leave something out; not to read or talk about something and move to the next part

unique (*adjective*) not like anything else

1. Students _____ from having laptops: they can study anywhere.
2. At the bank, a machine _____ sorts or counts coins.
3. Ken decided to _____ the chapter he was reading because it was boring.
4. I am waiting for the prices to _____ before I buy a new phone.
5. If you just want to succeed, you need to get out of your _____.
6. Students should learn how to _____ information critically rather than just memorize it.
7. My brother is good with children. He likes _____ with them.
8. Run at a slower _____, and you won't get tired so quickly.
9. The school librarians are very helpful. They _____ us with a lot of useful information.
10. The Grand Canyon is a _____ place, I've never seen anywhere like it.

WORK WITH THE READING

A. Investigate Read the blog post and gather information about reading faster and better.



YOU CAN READ FASTER AND BETTER

For today's blog post, I interviewed Professor Steven Stanley, an expert in reading. He gave me some interesting ideas and tips about reading in English.

WHAT MAKES READING IN ENGLISH SO DIFFICULT?

1 Reading in a new language **provides** a **unique** challenge for students. To read, students need to use their eyes to take in the words, then use their brains to understand the words and the sentences. It can be hard!

WHAT MISTAKES DO STUDENTS MAKE WHEN THEY ARE LEARNING TO READ IN ENGLISH?

2 Many students move their mouths as if they are speaking each word, even when reading silently. This is a not a good idea because your eyes and brain can move faster than your mouth.

3 Another common problem is stopping to look up the meaning of every new word. You can **skip** over those words and still understand a lot of the reading. Or, just quickly underline the word as you read; then come back later to look it up in the dictionary. It also slows you down if you translate everything from English to your own language.

I SEE. ARE THERE OTHER PROBLEMS THAT STUDENTS HAVE?

4 Lots of students, especially when they are beginning, read just one word at a time. This **decreases** their reading speed. Don't read every word one by one. Instead, read in small groups of words or phrases that contain meaning. Here's an example of a sentence shown in thought groups. If you focus—on groups of words—together in thought groups—it is easier for your brain—to **process** the information. Reading faster can actually help you remember better. Your brain can understand groups of ideas better than just single words. Your goal should be to read **automatically** so that you can do it without thinking about individual words.

HOW ELSE CAN STUDENTS READ FASTER AND BETTER?

5 For one thing, students can **benefit** from practicing to increase their reading speed. Here's how. Use a book that is not too difficult for you. Select a page or two from the book. Read the passage to see how long it takes you. Then go back and read the same passage again. Can you beat¹ your time? What if you try again? If you do this, you should be able to increase your reading speed. It will help you see what it feels like to read more quickly.

6 Another way to read faster is to set a fast **pace** for yourself. Use your hand, a pencil, or a piece of paper to move quickly down the page. Then try to follow it with your eyes. It should be a little bit difficult to keep up. If it is too easy or feels very comfortable, then try increasing the speed. You want to provide yourself with a challenge. Think of reading faster as if it is a sport. If you want to get better, you need to push yourself out of your **comfort zone**.

DO YOU HAVE ANY OTHER GOOD IDEAS FOR STUDENTS?

7 Yes! For textbooks and more difficult material, I suggest that students mark up their books. By that, I mean that—as long as the book belongs to you—you shouldn't be afraid to write in it. Use a pen, pencil, or highlighter². You can underline or highlight new vocabulary words and the main ideas. If you have questions or ideas, don't be afraid to write them in the margins of the book. Good readers like to **interact** with the text, and writing is a good way to this.

8 Finally, students can improve their English by making reading a habit. Students should read every day. The best idea is to read for pleasure—to read for enjoyment. The secret is to find a book that is not too difficult for you. If it is too hard, then you might be discouraged. You should also read books about things that are really interesting to you. That will help you stay interested in the subject matter

¹**beat:** to do better than someone or something

²**highlighter:** a special colored pen that goes on top of writing in a book to show that something is important

B. Circle the ideas that the blog post includes.

1. Moving your mouth when you read can make you read more slowly.
2. It is important to understand every word in a reading passage.
3. It can be helpful for your English to read books that are easy for you.
4. It's good to practice your reading on subjects you don't like.

C. Read the statements. Write *T* (true) or *F* (false). Then correct each false statement to make it true. Write the paragraph number where the answer is found.

_____ 1. Reading in English can be difficult.

Paragraph: _____

_____ 2. It's a good idea to pronounce each word as you read it.

Paragraph: _____

_____ 3. You should stop and look up the meaning of any words that you don't know.

Paragraph: _____

_____ 4. Translating everything from English to your own language will help you read faster.

Paragraph: _____

_____ 5. It is better to read in thought groups instead of one word at a time.

Paragraph: _____

_____ 6. It is good to practice reading faster, even if you feel uncomfortable.

Paragraph: _____

_____ 7. Reading for pleasure and enjoyment is a good way to improve your reading.

Paragraph: _____

D. Answer the questions. Use information from the reading.

1. Why is reading a unique challenge?
2. What mistakes do students make when they are learning to read in English?
3. Why is it better to read in thought groups instead of individual words?
4. How would you go about pacing yourself to increase your reading speed?
5. What is a good way for readers to interact with the text?

VOCABULARY SKILL: Word forms

Learning all forms of a word and how they are used helps you build your vocabulary. This skill will also give you more flexibility in your writing and speaking. Notice how different forms of the same word are used in different contexts.

analyze (v.) to examine the nature or structure of something, especially by separating it into its parts

Please analyze the information in the report closely.

analyst (n.) a person who examines facts in order to give an opinion about them

Martin is a financial analyst for a large corporation.

analytical (adj.) using a logical method in order to understand something

The course helps students to develop analytical skills.

analytically (adv.) doing something by using a logical method

Many recent graduates are unprepared to think analytically.

A. Choose the correct form of the word and complete the sentence.

1. I'd like to have a kitchen that's **function/ functionally / functional** rather than fashionable.
2. Some experts say that there's no such thing as global warming but no one finds it **believable / believably / belief**.
3. This factory has been a **producer / productive/ / produce** of white furniture for more than four decades.
4. The standard of living in many **development / developing/ developed** countries are quite low.
5. The retired sportsman runs a **success / successful / successfully** business in Los Angeles.

B. Write the correct form of the word given to complete the sentence.

1. She has been doing research work as a _____. (SCIENCE)
2. Most bird species are under _____ by law. (PROTECT)
3. The view from the top of the mountain is absolutely _____. (FASCINATE)
4. He is the most famous _____ who has ever had an exhibition in this gallery.
(ART)
5. The new cars are equipped with very _____ engines. (POWER)
6. He took a lot of _____ with him because it would be a long journey. (EQUIP)
7. The newspaper is delivered to my doorstep _____ at 5 in the morning.
(REGULAR)
8. The new medicine proved to be very _____ in dealing with the flu. (EFFECT)
9. You will _____ need warm clothes when you travel in March. (DEFINITE)
10. It is _____ to have such great children. (WONDER)

WRITING 1: Infinitives of purpose

An infinitive is *to* + the base form of a verb. We sometimes use infinitives to show the purpose of an action. We call these *infinitives of purpose*. An infinitive of purpose is usually separated from the main verb in a sentence. Infinitives of purpose can be used with most action verbs.

Get enough sleep **to increase** your brain power.

main verb infinitive of purpose

You can **pace** yourself **to read** faster.

main verb infinitive of purpose

Skip unknown words **to speed up** your reading.

main verb infinitive of purpose

Sometimes an infinitive of purpose comes before the main verb.

To increase your brain power, **get** enough sleep.

infinitive of purpose main verb

Not all infinitives are infinitives of purpose. An infinitive of purpose has the same meaning as *in order to*. If you insert the phrase *in order to*, it will help you figure out if an infinitive is one that shows purpose.

Infinitive of purpose:

--He called me **to** apologize.

--He called me **in order to** apologize. (the same meaning)

A. Underline each infinitive of purpose in the paragraph.

Creating your own online blog is a good way to connect with people who share your interests. I started a blog last year to share my experience as an international exchange student in Miami, Florida. It was very easy to do, and it allowed me to practice my writing skills and be in touch with other students. Here's how you do it. First, go online to find free blog websites. There are many available, but you should look for one that is easy to use. Start by looking at some sample blogs to get ideas for your own blog. Then get started! The site will tell you what to do for each step of the set-up process. After you have set up your blog, you can write your first post. Use photos to add visual interest to your page. Having a blog is a fun experience because you get comments from people who read it. It's also a great way to practice your writing skills and to think creatively.

B. Answer these questions using infinitives of purpose.

1. Why do you use the Internet?
2. What is another kind of technology that you use? Why do you use it?
3. Why do students want to read faster?
4. Why are you studying English?

READING II- Brain Secrets of the Most Successful Students



PREVIEW THE READING

A. Quick Discussion

Discuss these questions with your classmates.

1. Are you a student who learns in class during the lesson or at home by revising? Do you concentrate on your studies easily?
2. Is there anything that motivates you while studying?

B. Look at the magazine article. Where do the students come from?

C. Here are some words from Reading 2. Read their definitions. Then complete each sentence.

access (*verb*) to get or use something

assist (*verb*) to help

concept (*noun*) an idea; a basic principle

eventually (*adverb*) after a long time

frustrated (*adjective*) angry or impatient because you cannot do or achieve what you want to do

internal (*adjective*) of or on the inside of a person, place, or object

period (*noun*) a length of time

physical (*adjective*) of and for your body

productive (*adjective*) that can make or grow something well or in large quantities

respond (*verb*) to say or do something as an answer or reaction to something

1. I thought my friends would never come back from the store, but _____ they did.
2. Michael got a lot of work done. It was a very _____ day.
3. You can _____ the school WIFI using this password.
4. At our store, the computer specialists _____ customers. It is their job.
5. To be healthy, it is important to develop _____ strength.
6. The doctor could not see anything wrong on the outside. It was a/an _____ problem.
7. I tried to register for classes today, but the website did not work. Now all the classes I want are full. I am so _____.
8. The _____ of the 1920s was known as the jazz age.
9. The phone company said they would _____ quickly to my problem.
10. The idea of death is a difficult _____ to understand.



BRAIN SECRETS OF THE MOST SUCCESSFUL STUDENTS

1 *Students everywhere wonder how they can study less and learn more. Fortunately, thanks to advances in the field of brain science, it is possible for everyone to be a more successful student. Here are study tips from four successful students:*

YUKI TANAKA FROM JAPAN **2** I find it's really helpful to study for short periods of time and then take a break. If I try to study for a long time, my brain doesn't have a chance to rest. But if I work for about 45 minutes and then stop for a little while, I actually become more **productive**.

3 Here's a good way to remember new information. Instead of trying to remember something new by just studying it once, I return to it a few different times and repeat it. So if I am trying to learn new vocabulary words, first I try to remember them right after I learn them. That way my brain can **access** the new information. Then I try to remember them again the next day. And then again the day after that. By putting some space in between, I can **assist** my brain to remember the new words

EMRE ARSLAN FROM TURKEY **4** Believe it or not, the best advice that I got to increase my brain power actually came from my mother! She always told me to be sure to get enough sleep at night. It turns out that my mom was right! Scientists say getting enough sleep is important to help your brain work at a high level. During the day, your brain gets filled with information. At night, when you sleep, your brain continues to process that information. Scientists found that enough healthy sleep can increase people's ability to learn. But when people don't get enough sleep, they don't learn as well.

5 OK, here's another tip from my mom: it's important to get enough exercise. When you exercise, you increase the movement of blood all through your body. This includes your brain. When your brain receives more blood, it can grow new **internal** pathways to help you think better. Thanks Mom! I'm going to go and work out now!



SARAH COOPER FROM CANADA ⁶ The key for me is to take notes in class. Writing something down helps me remember, and I need to understand something in order to write it down. There is something about the **physical** act of writing that helps me remember the ideas better. When I first tried to take notes, I felt **frustrated**. But I kept trying, and **eventually** my listening and comprehension skills got better. So that has worked

really well for me. Also, I heard that researchers said that if you are taking notes in class, it is better to use a pen and paper rather than a laptop. In experiments, when students took notes by hand, they listened more actively and were better able to identify important **concepts**.



ALEX LUKANOV FROM RUSSIA ⁷ My secret to success is to give my brain some variety. If I try to learn everything the same way every time, my brain won't find it interesting. So instead of always studying the same way, I introduce some variety into my study habits. So if I usually study in my bedroom, I try studying in the kitchen instead. Rather than studying only in the evening, I try studying during the afternoon. My brain **responds**

well to things that are new.

⁸ Another thing that helps me is to try to teach another student. When I take the time to study and then explain ideas to another person, it really helps me understand the subject and organize my ideas. When I am able to successfully teach another person, it helps me remember and process the information, too.

⁹ Try out some of these ideas. You may find that you can study less and learn more.

1 Pathways: connections

WORK WITH THE READING

A. What is the main advice that Yuki gives?

1. It is important to get enough sleep.
2. Writing something down helps you remember.
3. A good way to remember is to study something and then repeat the process.
4. It's helpful to teach another person.

B. Read the statements. Write *T* (true) or *F* (false). Then correct each false statement to make it true. Write the paragraph number where the answer is found.

____ 1. It is helpful to study for short periods of time and then take a break.

Paragraph: ____/_____

____ 2. Yuki suggests trying to remember something one time.

Paragraph: ____/_____

____ 3. It doesn't matter how much sleep you get.

Paragraph: ____/_____

____ 4. Your brain receives more blood from exercise.

Paragraph: ____/_____

____ 5. Taking notes by hand helps students understand concepts.

Paragraph: ____/_____

____ 6. Alex likes to study in the same way each time.

Paragraph: ____/_____

____ 7. Explaining ideas to another person can help organize the subject in your head.

Paragraph: ____/_____

C. Match the student with the advice they give. Write the name of the student next to the advice.

Yuki	Emre	Sarah	Alex
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____ 1. Get enough exercise

____ 2. Take notes in class

____ 3. Study for short periods; then take a break

____ 4. Try to teach another person

____ 5. Get enough sleep

____ 6 Give your brain some variety

D. Discuss the questions in a group.

1. Which person in the text do you agree with? Why?
2. Do you think the information in the text will help you become a better learner? Or will you keep studying in the same way?
3. How much help should teachers give students in their classes? How much is it the responsibility of the student?

WRITING 2: Transitions and Connectors Used in Problem Solution Essay

1. Introducing the problem:

One major issue is that

One major issue is that air pollution is increasing in urban areas.

The main problem with ...

The major problem with fast food is its negative impact on health.

2. Explaining Causes:

This is mainly due to ...

This is mainly due to deforestation and climate change.

This problem arises from...

This problem arises from economic instability and unemployment.

3. Introducing a Solution:

One possible solution is ...

One possible solution is promoting public transportation.

By doing this...

By doing this, we can reduce the negative effects of pollution

WRITING TASK 6: Choose one of the topics below and write a well-organized problem solution essay.

1. Some students find learning problematic. What can schools / colleges do to prevent it?
2. Students often find it difficult to concentrate due to distractions from their environment and technology. How can students solve this problem?

SELF-ASSESSMENT	Yes	No
Does the essay include an introductory paragraph, two / three body paragraphs, and a concluding paragraph?		
Does the essay start with an introductory paragraph with a hook and give important background information regarding the topic?		
Is there a clear thesis statement?		
Do the body paragraphs provide details and /or examples?		
Does the concluding paragraph summarize the information you have put in the essay?		
Have you used expressions for solutions suitably?		