

من مقرر اللغة الإنكليزية

Lecture 1

Social studies – Education

Page 53 - 54

English Teacher

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The Brain, Learning, and Memory

- New ways of teaching come and go. For a few years, one educational method is popular, and many teachers use it. Then a new approach—method—appears, and everything changes. So which ways are best? How can students learn fast and well? A new book looks at the human brain to answer these questions. Eric Jensen's *Teaching with the Brain in Mind* is an important book for any serious, creative reader.

العنوان : الدماغ – التعلم والذاكرة

• المفردات :

- - approach : { noun } طريقة
- - appear : { verb } يظهر
- - popular { adjective } شعبي
- - creative {adjective } مبدع
- - serious { adjective } جاد

Learning and the Brain

- Scientists are studying the human brain. They know that genes determine 30–60 percent of the connections in our brain. Education and life experience determine the other 40–70 percent. In his book, Jensen shares new discoveries and their influence on education. We now know this: “learning changes the brain.” This is good news. In a rich environment, neurons—brain cells—grow new connections.
- 5 People can become more intelligent. This is true of both children and adults.



Teaching with the Brain in Mind, by Eric Jensen

- connection { noun } رابط
- experience { noun } خبرة
- determine { verb } يحدد
- environment { noun } بيئة
- neurons { noun } خلايا
- intelligent { adjective } ذكي

What is a “Rich” Environment?

The main characteristic of a rich environment is stimulation—something new to experience such as a new movie, a new friend, new information, a new place—anything. The stimulation needs to be challenging—difficult, but not too difficult. With too little stimulation, students lose interest. They become bored. With too much stimulation, students give up—stop trying.

- stimulation { noun } **تنشيط**
- characteristic { noun } **صفة**
- Lose { verb } **يفقد**

According to Jensen, the “best way to grow a better brain” is to have the challenge of a new problem to work on. In a classroom, there are problem-solving exercises to work on such as word games, puzzles, discussions, or real problems. It isn't important to the brain to find a solution—an answer to the problem. Neurons grow because the brain is working to solve the problem, not because the solution is right or wrong.

- grow { verb } ينمو
- solve { verb } يحل
- wrong { adjective } خاطئ

The Brain and Memory



A brain cell

30 Many people say, “I have a bad memory. I can’t remember people’s names or words in a new language.” In *Teaching with the Brain in Mind*, Jensen discusses different types of memory. One type is “linguistic memory” of words, names, numbers, and textbook information. Our new understanding of the brain tells us this

35 about linguistic memory: “We remember best in chunks,” not bits. “Chunks” are bigger than bits. For example, a chunk is a group of words, a sentence, or a song. A bit is one letter, one word, or one note of music. One way to remember information in chunks is with mnemonics. A mnemonic is a technique to help the memory. Mnemonics are helpful because they are chunks.

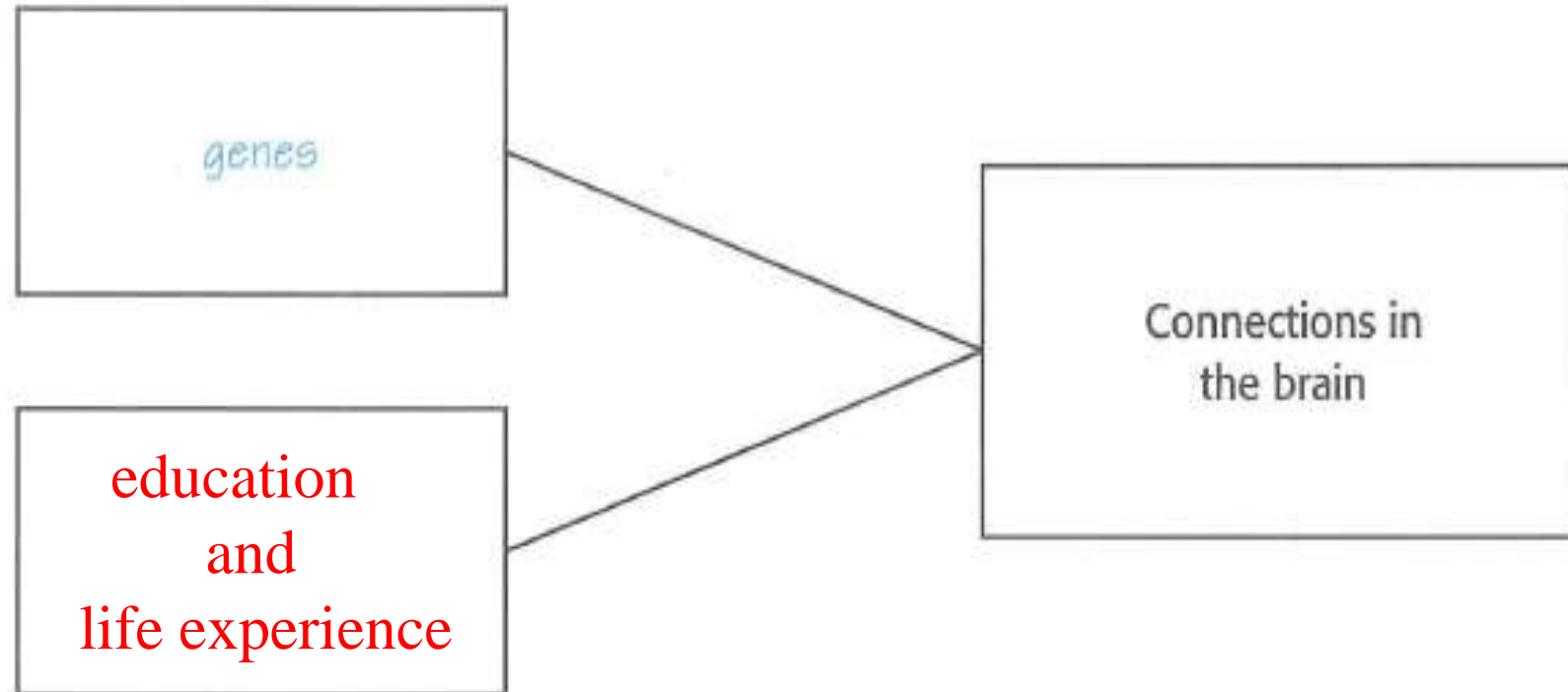
-helpful { adjective } مساعد

B. VOCABULARY PREPARATION Read the sentences below. The words in blue are from the next reading. Circle the meanings of the words in the sentences.

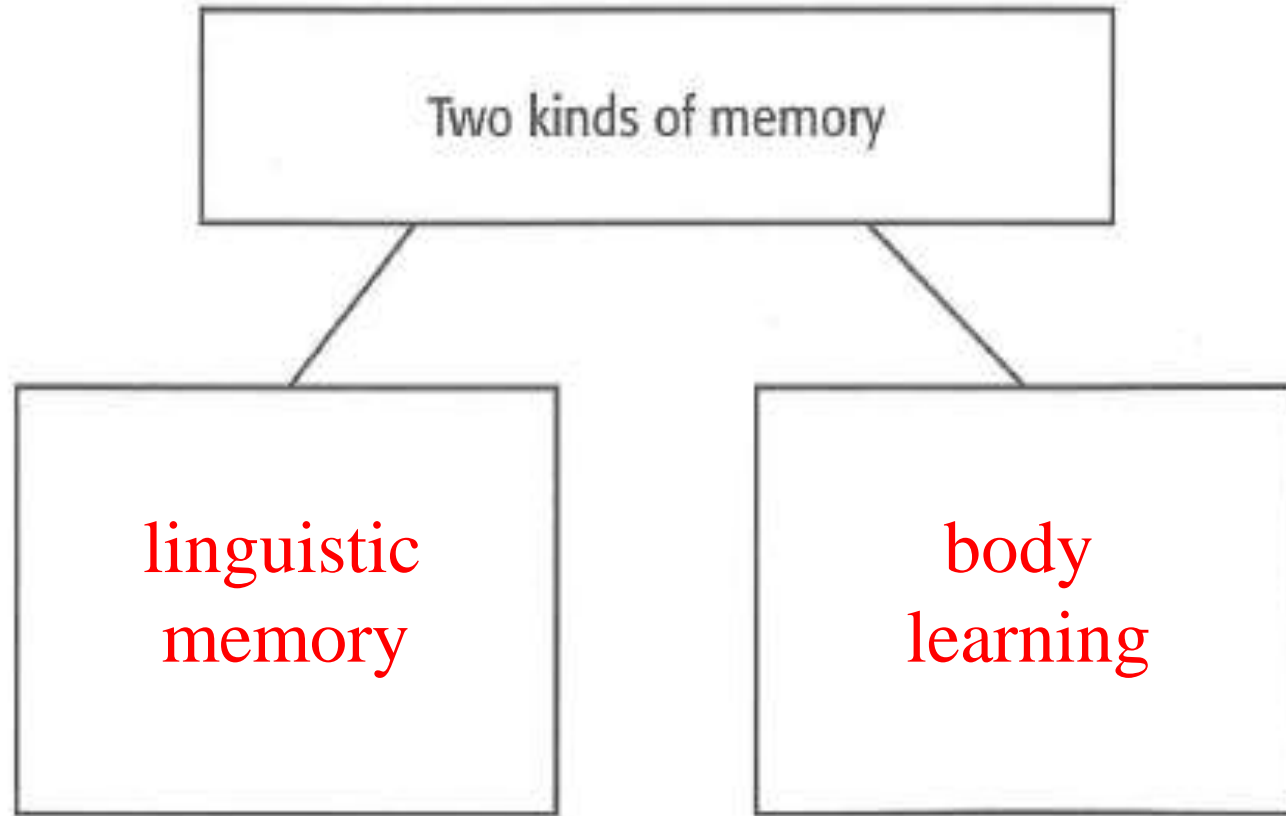
1. For a few years, one educational method is popular. Then a new **approach**—method—appears, and everything changes.
2. In the right environment, **neurons**—brain cells—grow new connections.
3. Brain cells need **stimulation**—something new to experience
4. The stimulation needs to be **challenging**—difficult, but not too difficult.
5. Is it important to find a **solution**—an answer to the problem?
6. A **mnemonic** is a technique to help the memory

B. FINDING DETAILS To answer these questions, fill in the two tree diagrams.

1. According to the second paragraph (lines 9–15), what determines the connections in the brain?



2. According to the fifth and sixth paragraphs (lines 30–54), what are two kinds of memory?



C. VOCABULARY CHECK Fill in the chart with examples from the reading on pages 54–55.

Word or Phrase	Examples
problem-solving exercises	<i>word games</i>
chunks	sentence , song
bits	one word , one note of music
physical actions	sports , dance