



Neuroscience of effective practice

🔦 C1 Level

🔦 Duration: 1 h

🔦 Age: adults

🔦 Individual lesson

🔦 Main focus

The student can understand enough to follow extended speech on abstract and complex topics beyond his/her own field;

The student can give elaborate descriptions and narratives, integrating sub themes, developing particular points and rounding off with an appropriate conclusion.

1

Warm-up

Exercise 1: Discuss the following questions:

- 1 Think of a skill that you recently tried to develop. How did you approach this?
- 2 What are some common challenges people face when trying to improve a skill through practice?
- 3 Are there any shortcuts or quick fixes when it comes to improving a skill?

Exercise 2: Relying on your experience, think of some tips for effective practice. Write them down.

2

Pre-listening

Exercise 3: Look at these 3 neuroscience terms and examples of their usage. Based on the context provided, what do you think they mean?

myelin

- 1 a protective covering or layer that surrounds something

sheath

- 2 a long, slender projection of nerve cells that transmits electrical impulses to other cells in the body

axon

- 3 a fatty substance that surrounds and insulates axons, allowing for faster transmission of nerve signals

Examples of usage:

Some recent studies in mice suggest that the repetition of a physical motion increases the layers of **myelin sheath** that insulates the **axons**.

The **axons** that exist in the white matter are wrapped with a fatty substance.

Myelin is similar to insulation on electrical cables.

3**Listening**

Exercise 4: Watch this video and answer the questions.

- 1 What is practice and how does it help us perform better?
- 2 What are the two kinds of neural tissue in our brains and what are their functions?
- 3 How does information travel from the brain to our muscles?
- 4 What is effective practice and how does it differ from regular practice?
- 5 What are some tips for effective practice?

4**Vocabulary**

Exercise 5: Match the following collocations from the video.

- | | |
|--------------|-------------------------------------|
| 1. minimize | a. the inner workings of our brains |
| 2. wrap | b. the secrets |
| 3. prevent | c. along neural pathways |
| 4. direct | d. our potential |
| 5. affect | e. energy loss |
| 6. attribute | f. successes |
| 7. move | g. information |
| 8. process | h. distractions |
| 9. maximize | i. signals |
| 10. unravel | j. with a fatty substance |

Exercise 6: Fill in the gaps with some of the collocations from the previous exercise.

1. In order to learn a new language effectively, it is important to understand how our brains _____.
2. Our sense of smell can _____ to the brain that trigger memories and emotions.
3. Meditation has been found to _____ by increasing grey matter in certain areas.
4. When we learn new skills, such as playing an instrument, the movements become more efficient as they _____ that strengthen with practice.
5. Successful people often _____ to hard work and perseverance rather than just natural talent.
6. To _____ while studying, try finding a quiet location away from potential interruptions such as phones or loud noises.
7. With advanced brain imaging techniques, scientists are _____ of how different areas of the brain interact and work together.
8. By setting achievable goals and practicing regularly, individuals can _____ in any given skill or endeavor.

Speaking

Exercise 7: Combine your tips from the beginning of the lesson with the tips presented in the video. Finish each of these sentence starters with a separate idea. Use at least 5 collocations from exercise 5.

1. One thing that has worked for me is...
2. If you want to ..., try ...
3. You might find it helpful to...
4. In my experience, it's been helpful to...
5. Something that could be worth trying is...
6. I've found that ... has helped me...
7. It might be useful to consider...
8. Here's something that has worked well for others...

Homework (Writing)

Exercise 1: You work for an advice column at some journal. Reply to these readers' messages by giving advice on how to organise practice better. Use the vocabulary from the lesson. Each response should contain at least 70 words.



John

I hate studying for exams. It's such a boring and time-consuming process. Last time I studied for an exam, I spent an entire weekend cooped up in my room with my textbook. I missed out on all the fun my friends were having at the beach. I wish there was a more efficient way...



Kristin

Hi, I hope you can help me.. I don't even know how to approach preparation for the upcoming finals. Sometimes I feel like it's not worth the effort because I can never seem to remember everything I need to know. I also get distracted all the time and tend to procrastinate. Could you help me with some advice?



Mabel

I don't know what to do. I've been trying to improve my writing, but I feel like I'm not making any progress. Sometimes I feel like just giving up, but then I remember how much I love writing and I keep going. But I feel like soon I will just run out of energy...



Correct answers and teaching tips

Exercise 1.

Created in the "Discussion questions" tool

Exercise 2.



Teacher tip

Ask your student to share the notes with you. Then tell them to keep the notes in mind for the speaking exercise at the end of the class.

Exercise 3.

Created in the "Word-definition matching" tool

1. sheath
2. axon
3. myelin



Teacher tip

This exercise is aimed at developing contextual guessing skills. Allow your students to analyse the example sentences in terms of syntax and vocabulary that is familiar to them.

Exercise 4.

Created in the "Questions for a Youtube video" tool

1. Practice is the repetition of an action with the goal of improvement.
2. Grey matter processes information in the brain, directing signals and sensory stimuli to nerve cells, while white matter is mostly made up of fatty tissue and nerve fibers.
3. Information travels from the brain's grey matter, down the spinal cord, through a chain of nerve fibers called axons to our muscles.
4. Effective practice is consistent, intensely focused, and targets content or weaknesses that lie at the edge of one's current abilities, while regular practice may not be as focused or targeted.
5. Tips for effective practice include focusing on the task at hand, minimizing distractions, starting out slowly or in slow-motion, frequent repetitions with allotted breaks, and practicing in vivid detail.

Exercise 5.

Created in the "Matching halves" tool

- | | |
|------|-------|
| 1. h | 6. f |
| 2. j | 7. c |
| 3. e | 8. g |
| 4. i | 9. d |
| 5. a | 10. b |

Exercise 6.

Created in the "Create sentences" and the "Fill in the Gap" tools

- | | |
|--|------------------------------|
| 1. process information | 5. attribute their successes |
| 2. direct signals | 6. minimize distractions |
| 3. affect the inner workings of our brains | 7. unraveling the secrets |
| 4. move along neural pathways | 8. maximize their potential |

Exercise 7.

Created in the "Create a text" tool.

Homework

Created in the "Four opinions" tool