

How to activate students

The webinar programme on
ICT IN PEDAGOGY

13.12.2022

Dr Minna Lakkala & Dr Liisa Ilomäki, University of Helsinki

● ● Why activation?

- Learners have to control their own learning and learning is an **active process**.
- The construction of coherent knowledge structures requires **understanding**, not just memorizing of facts. *E.g., how to use Kahoot / Socrative for understanding?*
- Learners' **prior knowledge** has to be integrated with the new information, which requires students' own active thinking. *E.g., students questions as a starting point.*
- **Metacognitive** processes and self-regulatory capabilities are an important part of a learning process - skillful learners have good metacognitive skills. However, metacognitive skills can be learned through guidance and practicing, they are not inborn.
- Some pedagogical models consist of continuous activation and starting from students' interests, e.g., inquiry learning, problem-based learning, project-based learning

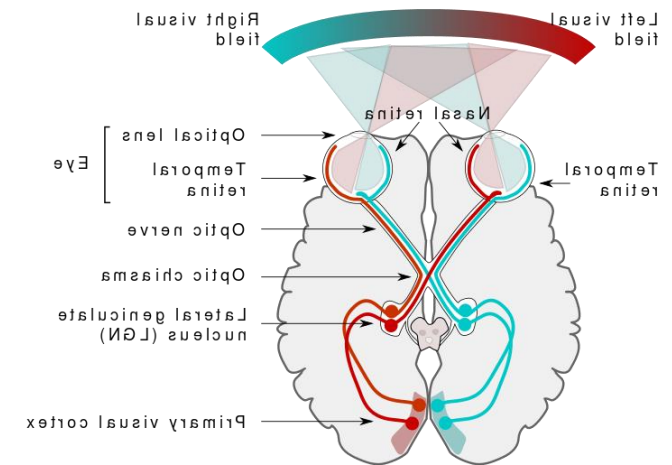
Metacognition: higher-order thinking that enables understanding, analysis, and control of one's cognitive processes, especially when engaged in learning.

Students' own questioning activates their prior understanding and helps them build on that

An example of inquiry learning in the 4th grade

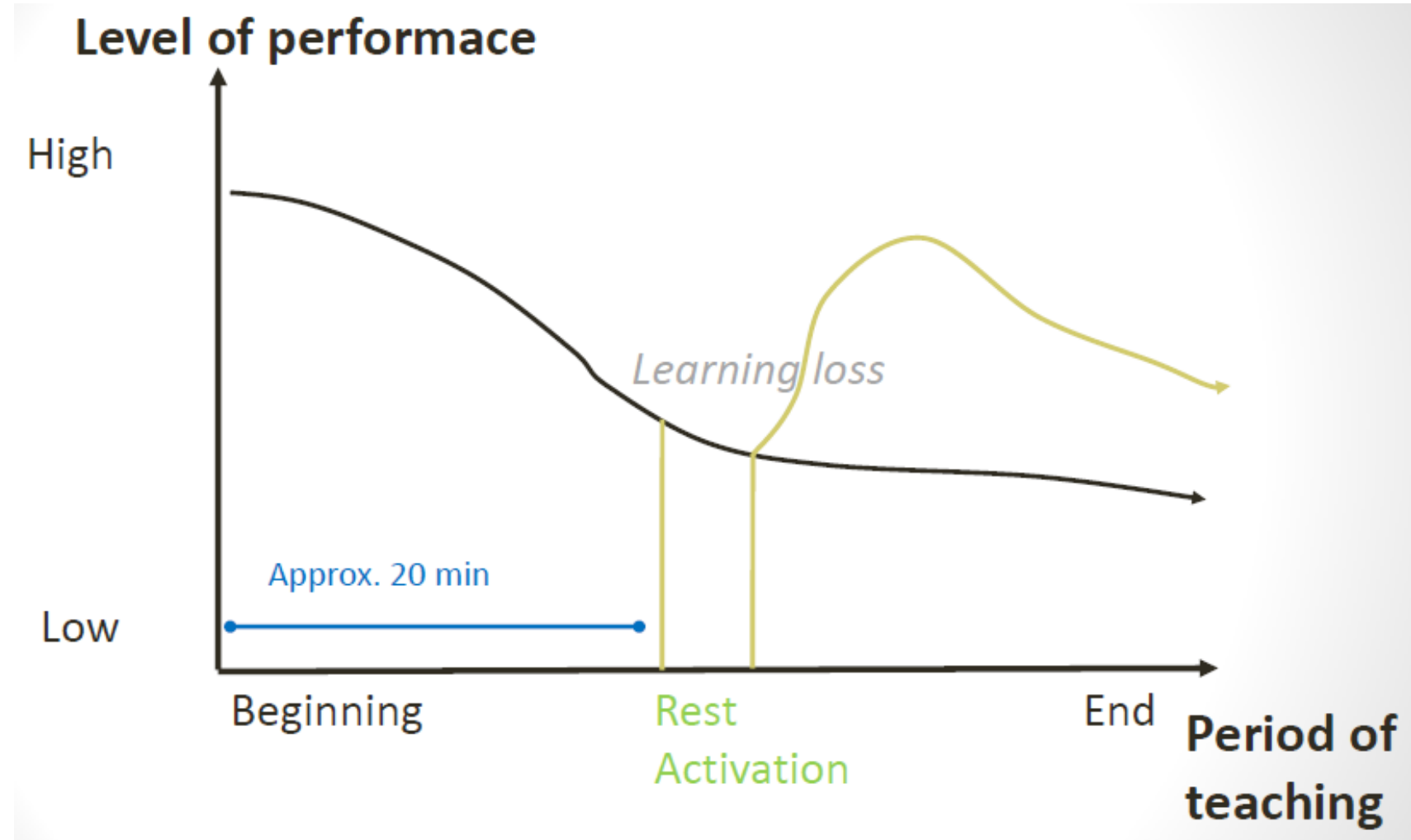
- The theme of the teaching unit was "Human senses"
- One group created a research question "*Can a human being see without brains?*"
- When hearing the question, the teacher thought that it was an absurd question and that students were joking.
- Based on the question, the group ended up examining and explaining the functioning of human visual system.

-> The original question turned out to be useful and relevant for the students: they understood that seeing happens actually in the visual cortex, not in the eyes.



Why activating lecture?

Level of students' performance during a lecture



Newble & Cannon
(2001). A Handbook
for Medical
Teachers.

Reasons for using activating methods in different phases of a teaching session

AT THE BEGINNING

Promoting motivation and focusing interest

Activating prior knowledge and orientating to the topic

Creating a positive and collaborative atmosphere

IN THE MIDDLE

Evaluating how the content has been understood

Supporting deep processing by giving time to think

Sharing viewpoints and different ways of understanding

AT THE END

Evaluating individually or in groups

- what was new (and what was learnt)
- what was useful and important

Thinking where and how to apply the learnt knowledge

Different ways to activate participants in online sessions

AT THE BEGINNING	IN THE MIDDLE	AT THE END
<ul style="list-style-type: none">• Write three words that describe you.• Turn on the video and microphone, take an object in your hand, introduce yourself and tell how the object describes you.• Write questions you want answered in the training. The trainer organizes the questions thematically and later returns to them.• Theme question: write an answer to a given question about the topic.• Initial mapping: everyone answers a survey, the results are discussed together.	<ul style="list-style-type: none">• Collecting virtual reactions (raising hands, clapping, liking, etc.).• Write thoughts and questions that have come to your mind up to this point.• Write your own examples of the topic and then comment on and complement others' examples.• One-minute tour: everyone has one minute to share their thoughts and views on the issue (camera on).• Voting or answering multiple choice questions to map out opinions.• Write solutions to problems in a shared document alone or in small groups.	<ul style="list-style-type: none">• Everyone camera on: show by spreading your hands how confident you are that you know how to apply the presented issues in your work.• Write down what thoughts or insights you received today.• Everyone in turn briefly says one thing that is relevant to them in the topic.• Write in a shared document issues you would still like to know or questions you would like answered.