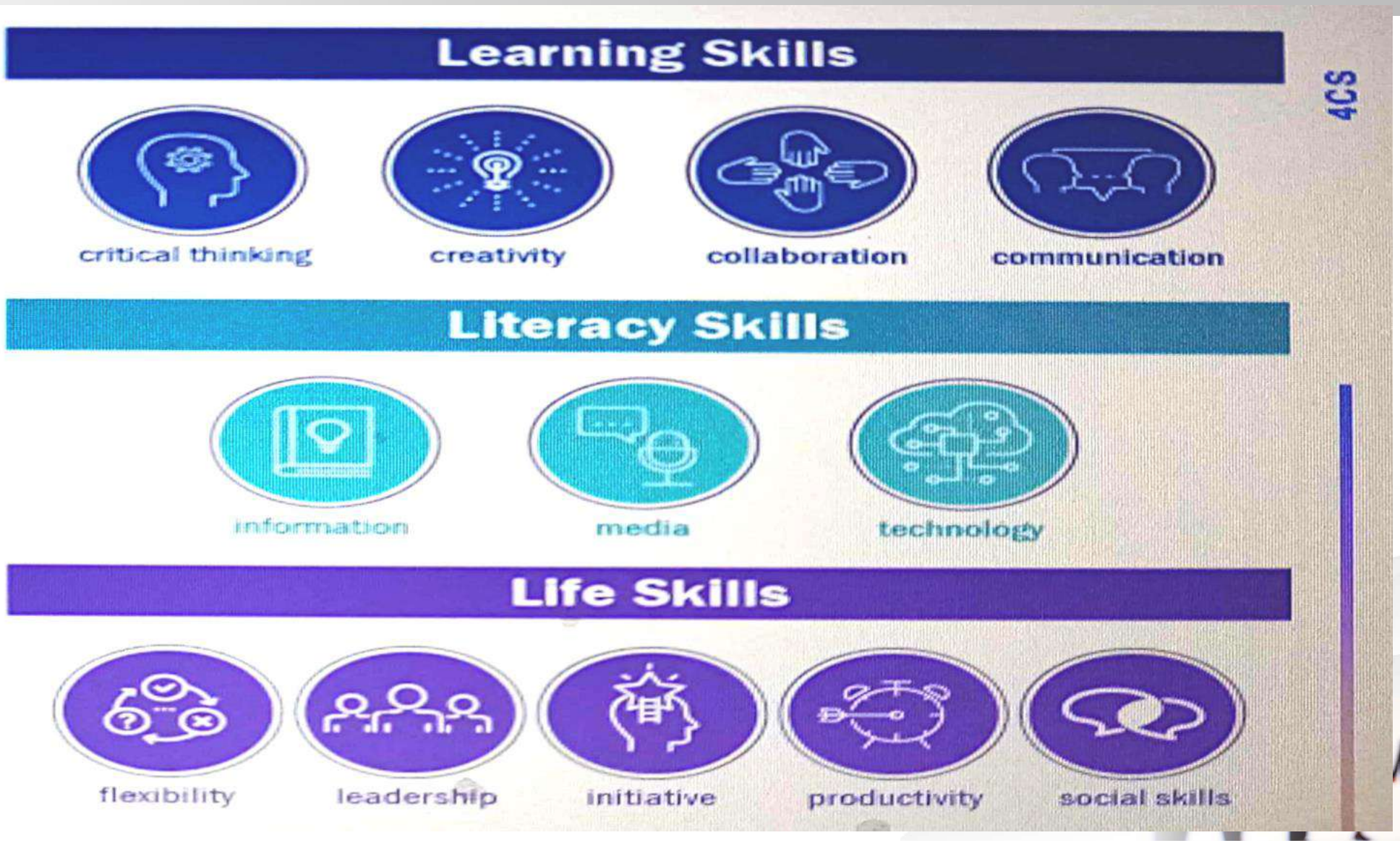
THE 4C’s: CREATIVITY, CRITICAL THINKING, COMMUNICATION AND COLLABORATION IN SCHOOLS

Berlin –October 30th/ November 3rd 2023 - Maria Teresa Penci

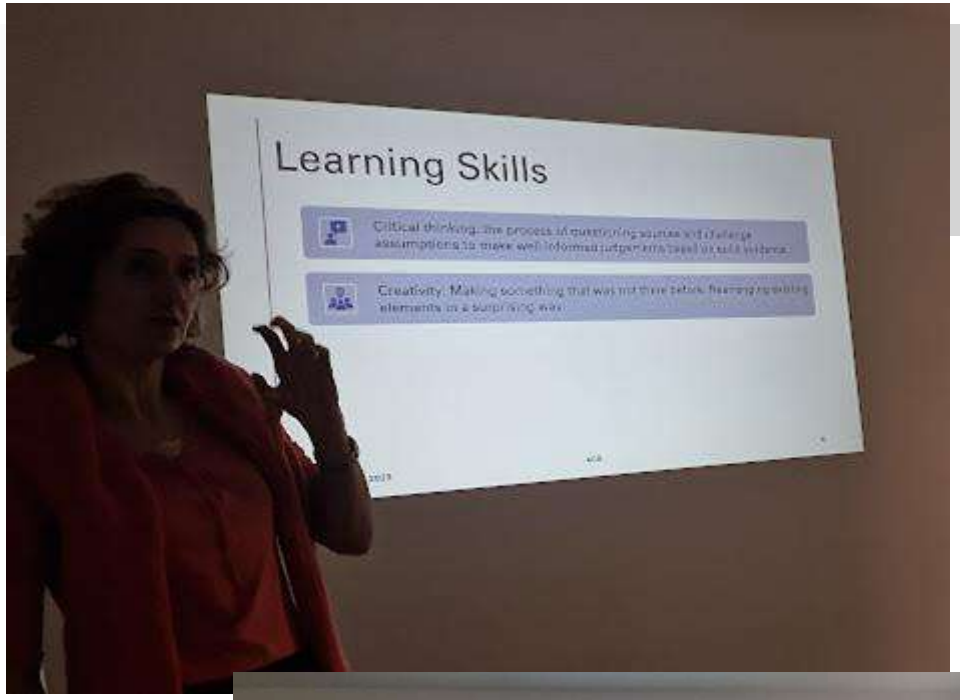
- Since the early 1980s, a variety of governmental, academic, non -profit, and corporate entities have conducted considerable research to identify key personal and academic skills they determined were needed for the current and next generation. Notable efforts were conducted by the US Secretary of Labor's Commission on Achieving Necessary Skills (SCANS), by a national coalition called **the Partnership for 21st Century Skills (P21),** by the international Organisation for Economic Co-operation and Development
- (OECD), by the American Association of Colleges and Universities (AA&U), by researchers at MIT, by other institutions of higher learning and private organizations.

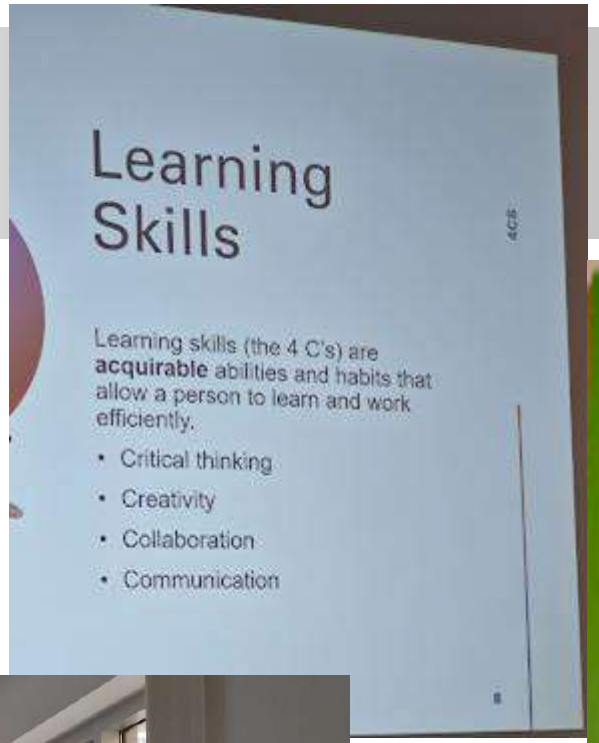
21st Century Skills

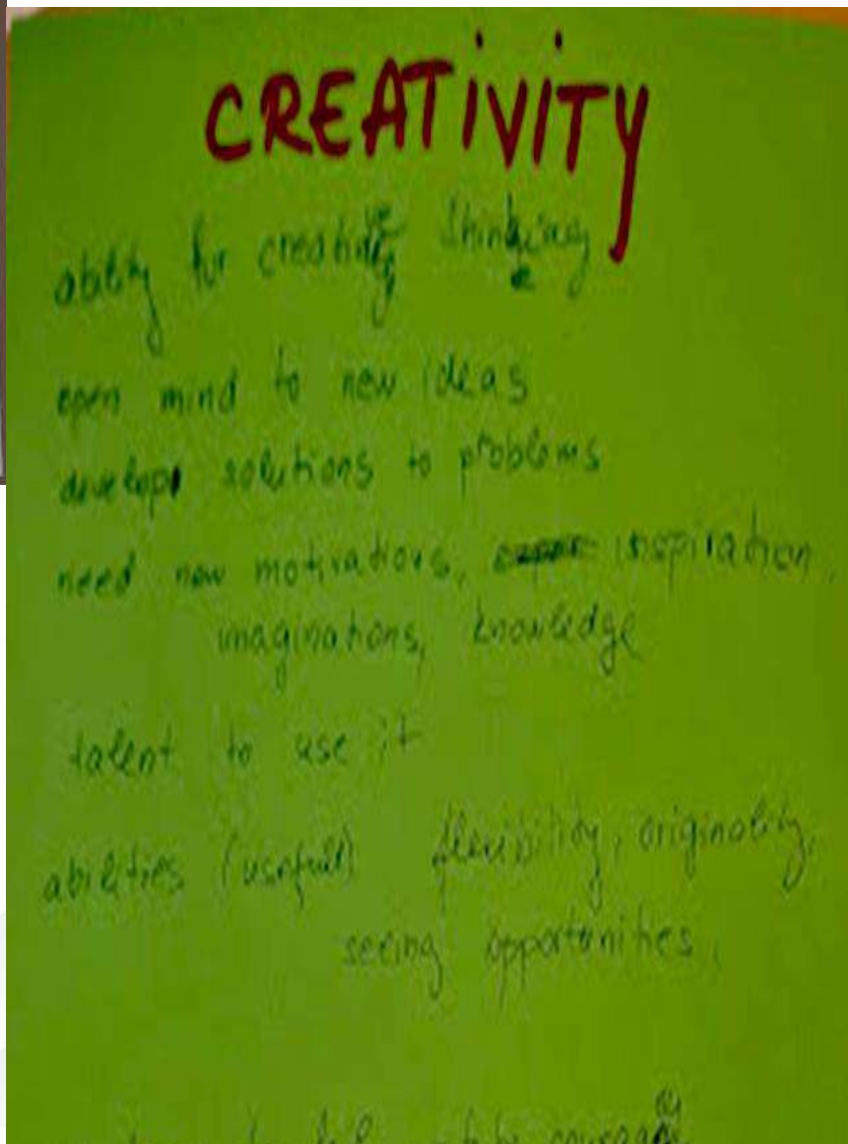


Learning Skills

- Critical thinking: the process of questioning sources and challenge assumptions to make well-informed judgements based on solid evidence.
- Creativity: Making something that was not there before. Rearranging existing elements in a surprising way.
- Collaboration: Working with others efficiently to achieve a common goal.
- Communication: conveying ideas in an effective way by using a variety of methods.


Learning Skills

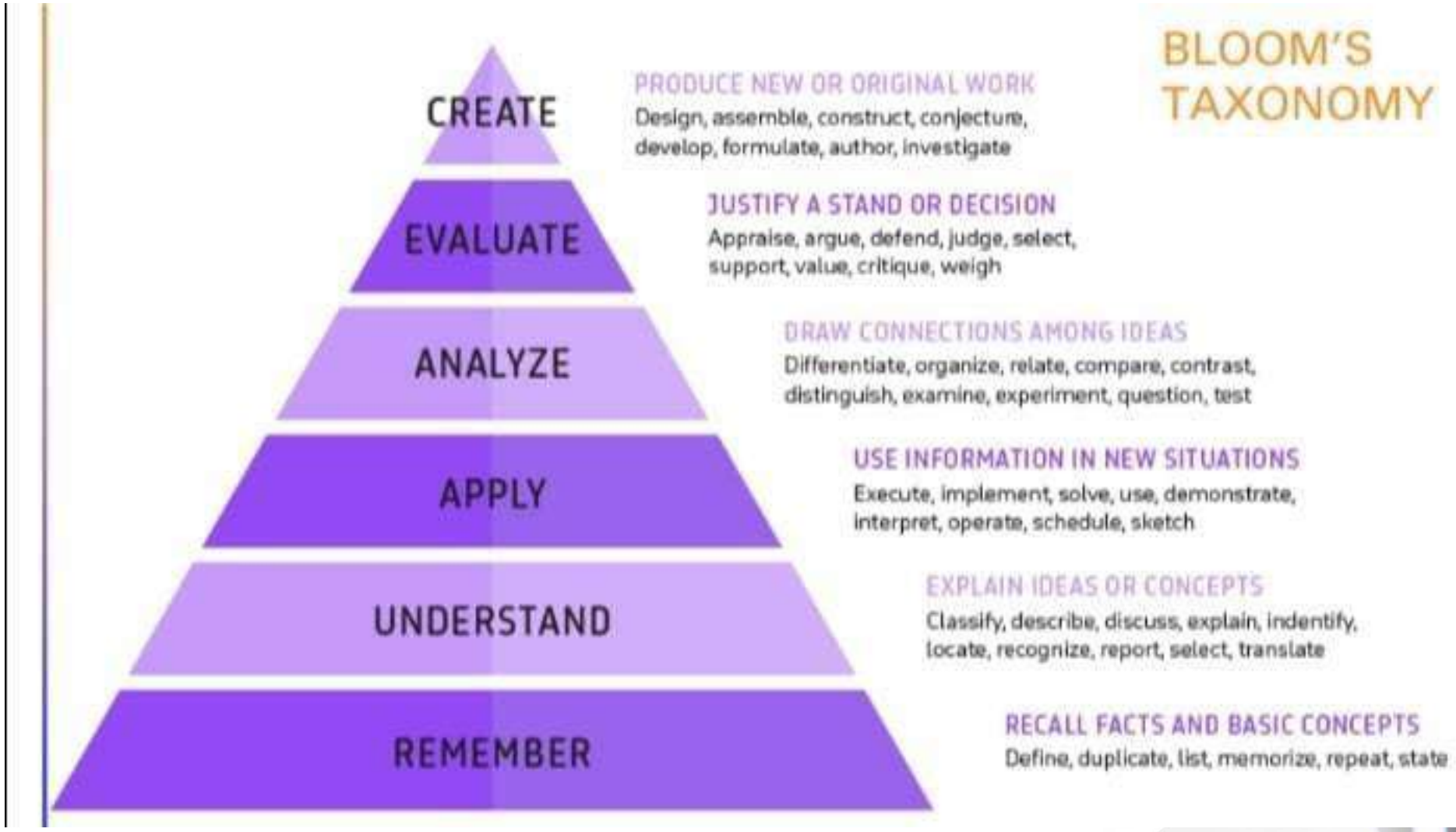

Learning Skills
Learning skills (the 4 C's) are acquirable abilities and habits that allow a person to learn and work efficiently.
• Critical thinking
• Creativity
• Collaboration
• Communication


CREATIVITY

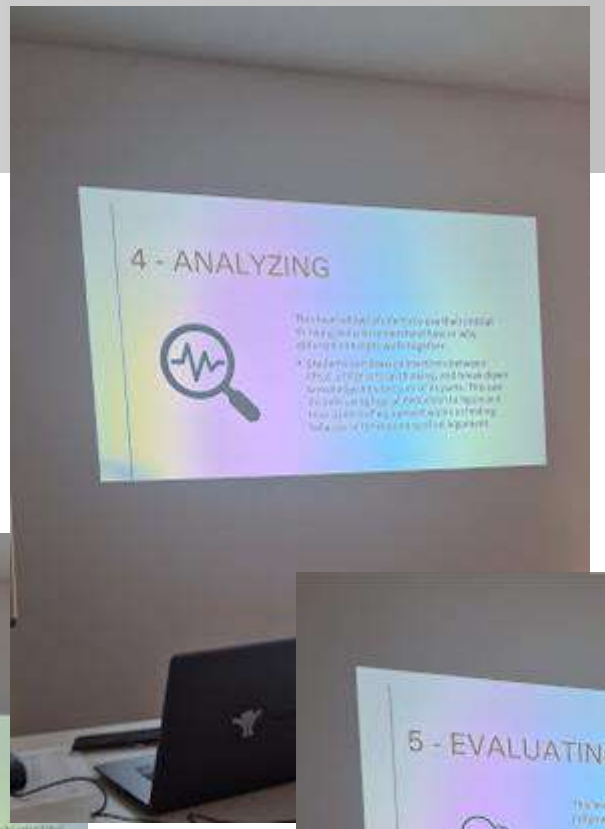
The course

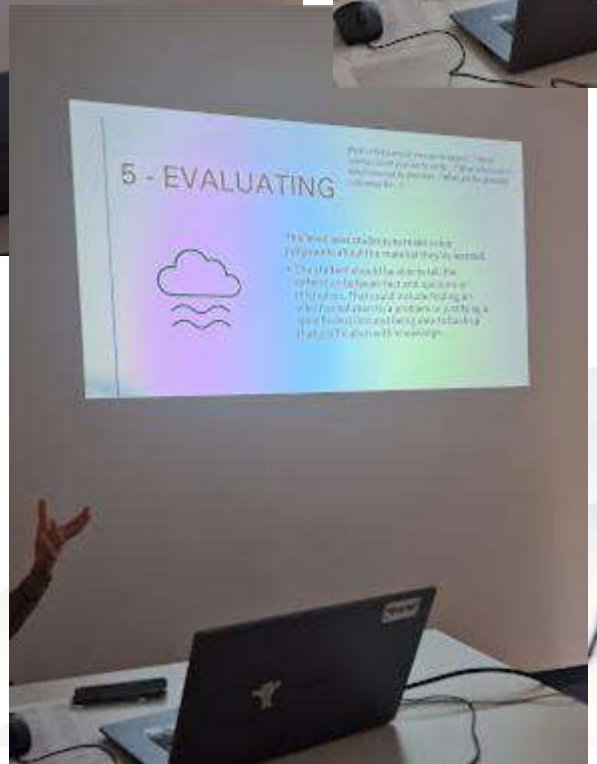
- The aim of the course is to learn to support students' collaboration, communication, creativity and critical thinking, turning learning from passive into active
- Creativity, critical thinking, collaboration and communication are attitudes for innovation which, contrary to popular belief, **can be taught, learned and implemented in any classroom**.

Bloom’s taxonomy



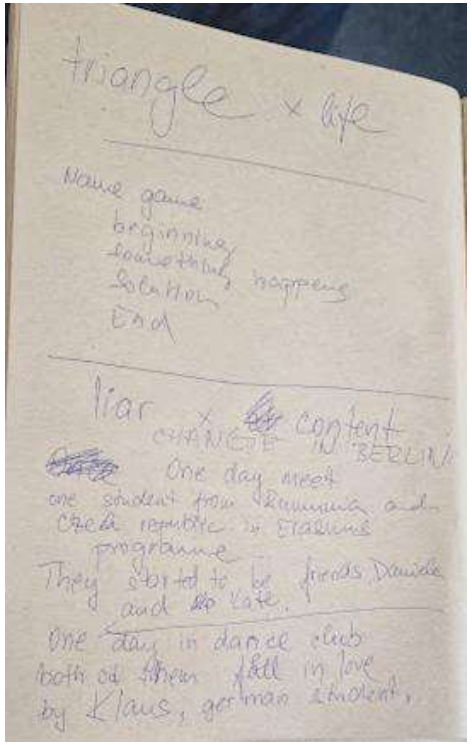
1 - C FOR CREATIVITY

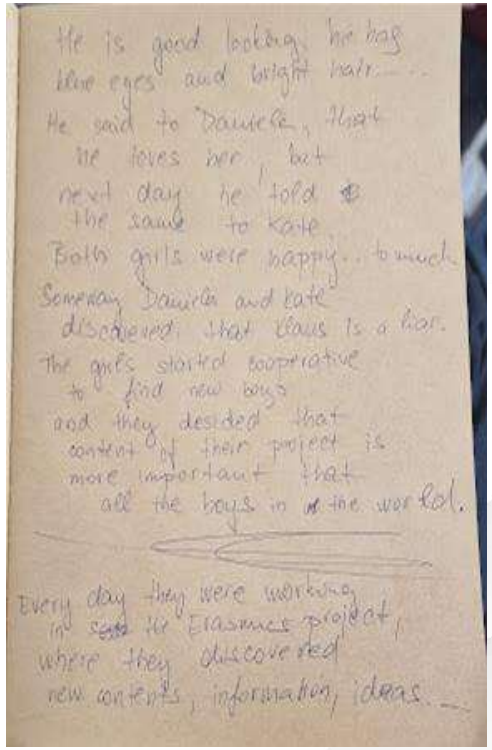




Creativity exercise

1. **Create posters**: Create two posters, one with words from the curriculum and another with random words. Each student writes one word on each poster.
2. **Mix the tickets**: Mix the tickets from both posters in a container.
3. **Form groups**: Form groups of 3-4 students.
4. **Extract two tickets**: Each group extracts two tickets, one from each poster.
5. **Make up a story**: The group makes up a story that includes both words. Encourage students to be creative and imaginative.





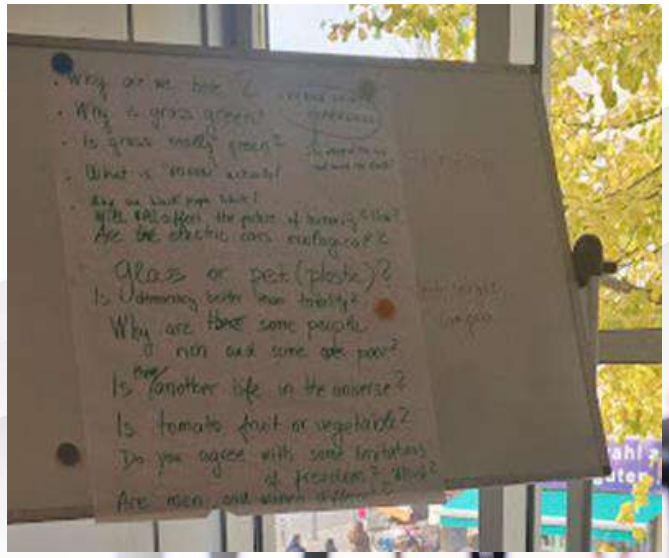
2- C for Critical Thinking – Train the brain

DRIVING QUESTIONS

A good driving question is:

- ❖ Open-ended enough to allow individual investigation
- ❖ Meaningful to students
- ❖ Support self-directed learning
- ❖ Involves authentic problem-solving
- ❖ Lends itselfs to cross-disciplinary work and collaboration
- ❖ **a driving question starts a thinking process and sparks curiosity**

- ADVICE: make sure each student feels that you value their contribution + there are no wrong answers



VISUAL THINKING STRATEGIES

Visual Thinking Strategies (VTS) are an enquiry-based teaching method that improves a student's ability to describe, analyze and interpret imagery and information by observing and discussing visual art.

VTS support the development of critical thinking skills and encourage participation in collaborative discussions.

WHAT'S GOING ON HERE?
WHAT CAN YOU SEE THAT MAKES YOU SAY THAT ?

- Students appreciate the fact that different interpretations are possible
- The goal is not to share information but to encourage critical thinking

3 – C FOR COMMUNICATION

“Communicating means “activating in someone’s mind something that is in our mind”, said Saint Augustine. It implies the voluntary and intentional transport of an idea from a sender to one or more known recipients". (Umberto Eco)

PROJECT-BASED LEARNING

Project-based learning (**PBL**) is a student-centered pedagogy in which students gain knowledge and skills in working for an extended period of time to investigate an authentic question or problem.
It is believed that students acquire a deeper knowledge through active exploration of real-world challenges and problems.
John Dewey is recognized as one of the early proponents of project-based education through his idea of "learning by doing".

Examples of PBL (pblworks.org):

- financial project for a family
- project about water quality
- environmental project for a school

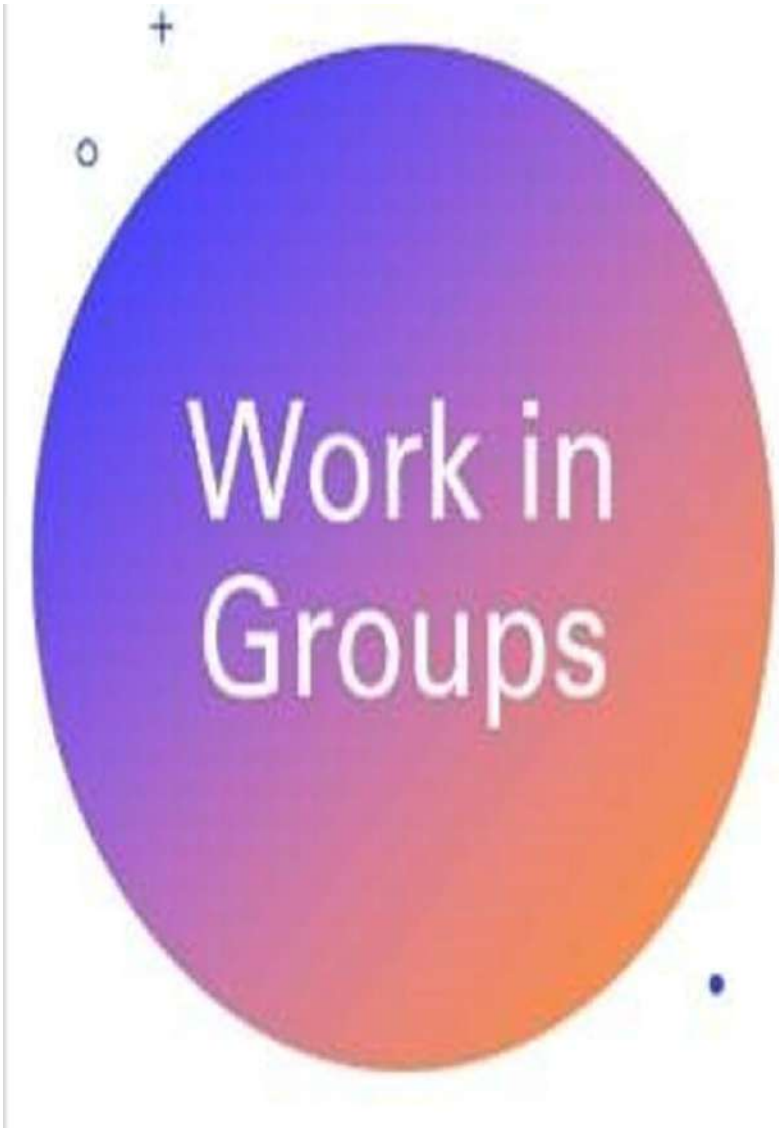
4 - COLLABORATION

«If I have seen further, it is by standing on the shoulders of giants » (Isaac Newton)

COLLABORATION – Work in pairs

- The teacher presents a problem or a question.
- Students think for a period of time
- Pairs work together to discuss and solve the problem.
- Students share what they learned in pairs

Work in Groups



COLLABORATION – Work in groups

Circle the Sage

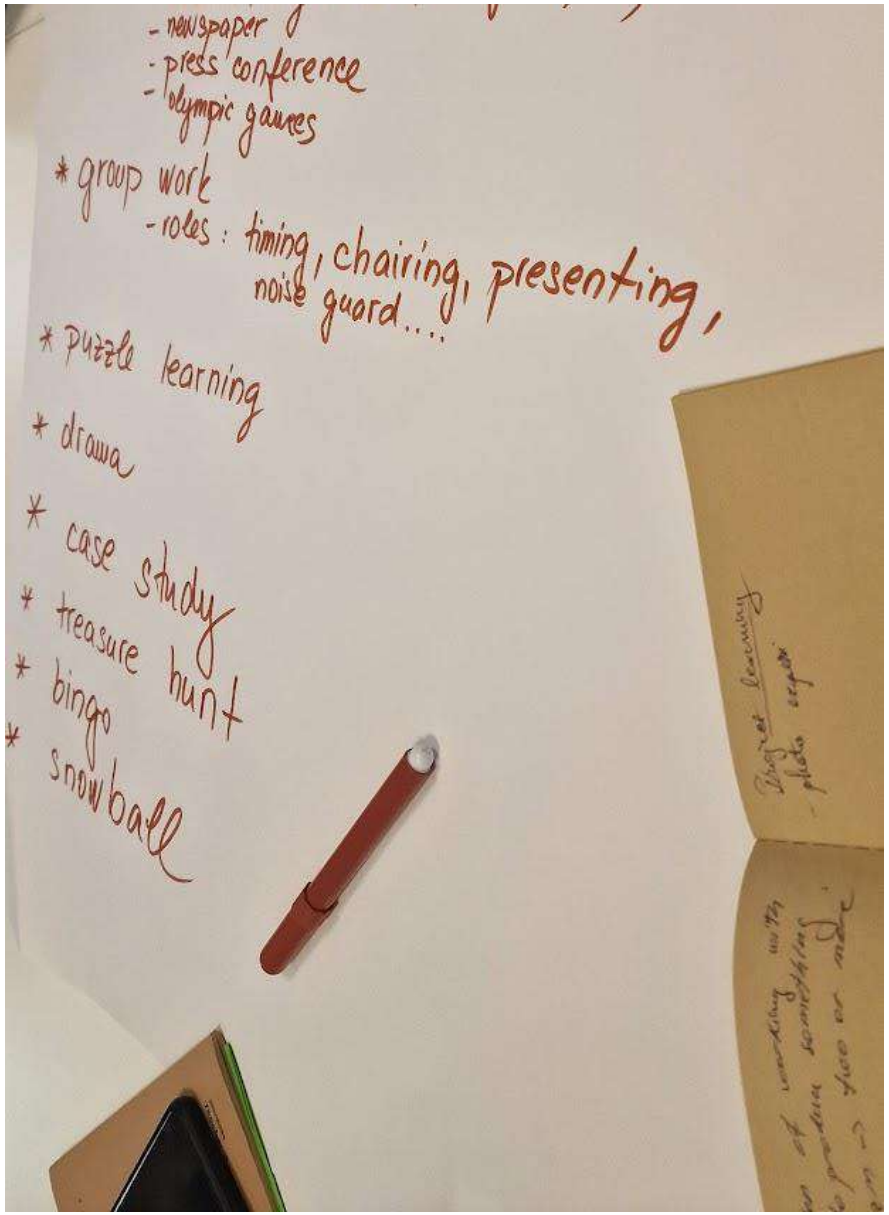
The students (sages) who are knowledgeable and comfortable sharing about a given topic spread about the space and the small groups of other students circle around to ask questions, listen, and take notes to enhance and deepen their understanding of a topic.

Round Robin

The term “round robin” referred to a petition or letter of protest put forth by English or French sailors to the Captain in the mid-1700s. The French term for “round ribbon” is “ruban rond”, which sound much like “robin” and likely was adapted as such.
The term “round robin” is used to describe the means to include everyone in a group in some sort of event.

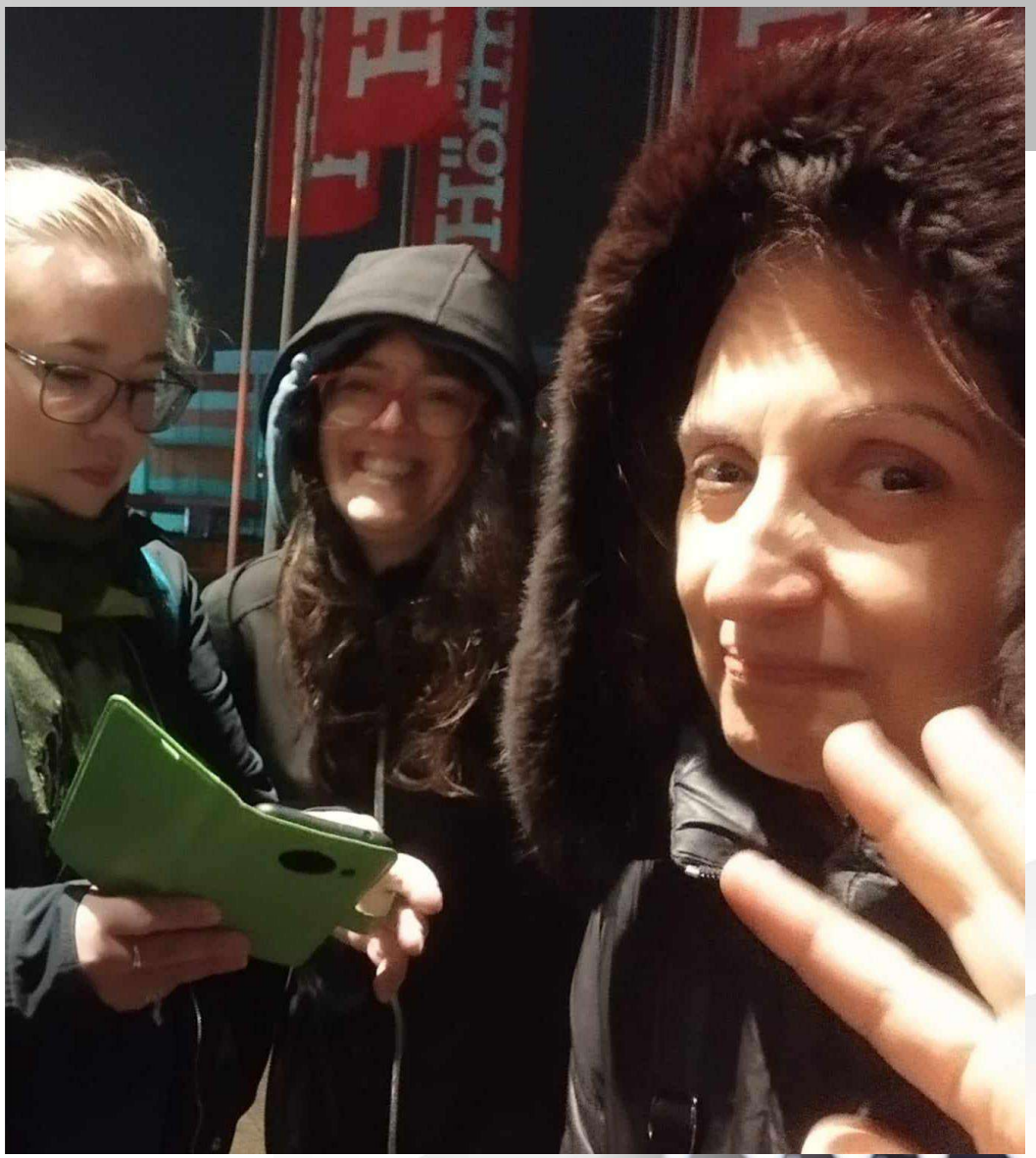
Erasmus+

COMMUNICATION


- newspaper
- press conference
- olympic games
* group work
- roles: timing, chairing, presenting, noise guard...
* puzzle learning
* drama
* case study
* treasure hunt
* bingo
* snowball

COLLABORATION

europass
Teacher Academy
Berlin
The Largest Variety
of Teacher Training
Courses in Europe



Read more

- www.thinkingschoolsinternational.com
- www.battelleforkids.org/networks/p21
- PBLWorks – YouTube
- www.thinglink.com
- Le quattro C delle competenze fondamentali che devono possedere gli studenti, Grieco (Indire): "Comunicazione, collaborazione, pensiero critico e creativo" - Orizzonte Scuola Notizie
- Russell Grigg, Helen Lewis, *Teaching Creative and Critical Thinking in Schools,* SAGE Publishing