Flipped Classroom
Artful Thinking

Critical Thinking
IBL & PBL

Creativity

21st Century Skills for Teachers and Students

Module 2 and 3



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Learning Outcomes for Thursday

- The Six Thinking Hats – De Bono Method
- IBL and PBL methods in Education
- Creativity
- Artful Thinking and Thinking Dispositions
- Flipped Classroom – Step by Step and examples
- Stop Motion Studio

The importance of questioning sources

Are they reliable?

What is the evidence?

Am I able to back up my opinion?

Am I thinking independently about this?

What is my point of view based on the facts and what is the reasoning?


LUCKY STRIKE
"IT'S TOASTED"
CIGAR
* The figures quoted have been checked and certified to by LYBRAND, ROSS BROS AND MONTGOMERY, Accountants and Auditors.
20,679* Physicians
say "LUCKIES
are less irritating"
"It's toasted"
Your Throat Protection · against irritation · against cough


Viceroys
FILTER
the Smoke!
VICEROY
Filter Tip
CIGARETTES
As your Dentist,
I would recommend
VICEROYS

Two types of questions

Factual:

- How many people visit Amsterdam every year?
- When was Erasmus founded?
- How many teachers are currently attending courses at the EuropassTeacher Academy right now?

Difficult/Probing:

- How does the municipality of Amsterdam manage the tourist flow after the pandemic?
- How do teachers decide what Erasmus programs to attend?
- Which European countriesare under-represented in Erasmus programs and why?

Team Problem Solving

https://www.youtube.com/watch?v=Za5yfeSwJVA&t=1s

BEFORE PBL and IBL is important to:

What prior knowledge (a part from the related to subject content) is necessary for PBL and IBL?

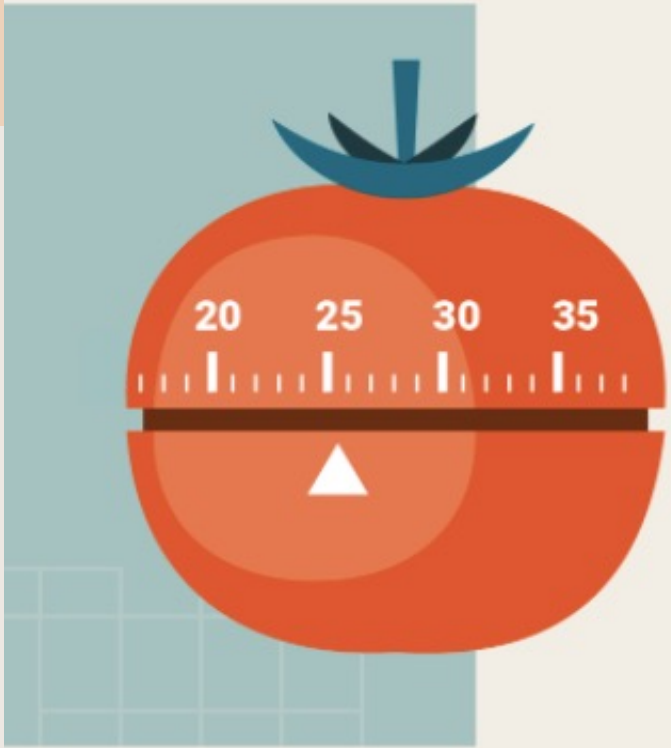
1. Have considered what is critical thinking.
2. Differences between factual and probing questions.
3. Active and Passive Learning.
4. The importance of following steps and orderly arranging ideas.
5. The importance of being clear and specific.
6. Having basic to intermediate time-management skills.

https://www.usa.edu/blog/time-management-techniques/



9 TYPES OF TIME MANAGEMENT TECHNIQUES & TOOLS

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Pomodoro Technique

This technique has you **utilize a timer to break down your work into intervals**. Each interval is known as a *Pomodoro*.

WORKS WELL FOR:

- Creative thinkers
- Those feeling burnt out

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Pareto Analysis

aka the 80/20 rule

The 80/20 rule is the idea that **20% of actions are responsible for 80% of outcomes**. It helps you prioritize tasks that will solve problems.

WORKS WELL FOR:

- Problem solvers
- Analytical thinkers



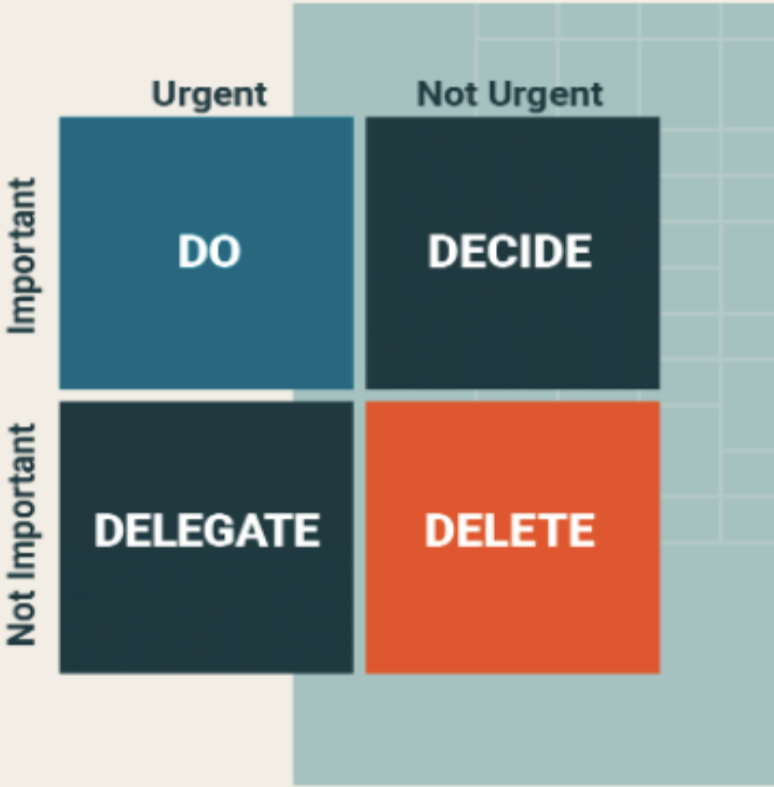
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Eisenhower Matrix

This method has you **organize your tasks into 4 quadrants** sorting them by important vs. unimportant & urgent vs. not urgent.

WORKS WELL FOR:

- People with tough decisions
- Critical thinkers



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Parkinson's Law

This law is based on the idea that **the amount of time you give yourself to complete a task**, is the amount of time it will take you to complete that task.

WORKS WELL FOR:

- Procrastinators
- People that work well under pressure

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Getting Things Done (GTD) Method

This process works to help you **move planned tasks aside by recording them on a piece of paper** & then breaking them down into actionable work items.

WORKS WELL FOR:

- Distractible people
- People who like to make lists

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Rapid Planning (RPM) Method

This technique was developed by Tony Robbins as a way to condition and **train your brain to focus on the outcome you're after**.

WORKS WELL FOR:

- Working students/parents
- People with long-term goals



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PBL Problem/Project Based Learning

PBL

- Problem-based learning (PBL) is a method of education in which the student is at the center and the teacher is guide on the side.
- In PBL students themselves are responsible for their own learning process and have to a certain degree control over the choice of literature.
- In order to support the learning process, there are a number of roles in the tutorial group.
- In PBL the group is jointly responsible for the quality of the learning process and for the success of the meeting.

What is Problem Based learning and how can we improve our teaching with it?

Why use PBL?

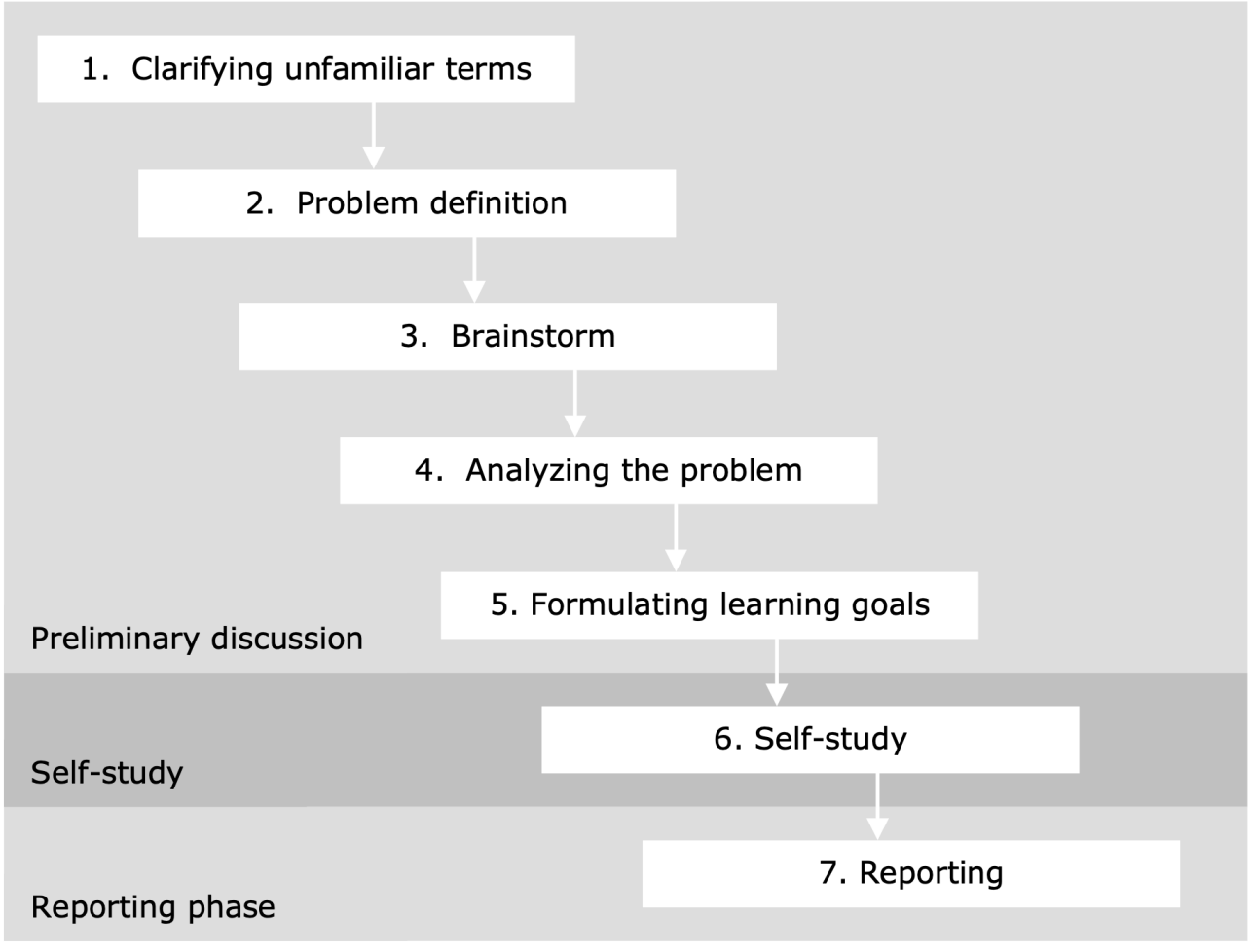
- In-Depth Inquiry
- Driving Question(s)
- Need to Know
- Voice & Choice
- Revision & Reflection
- Public Audience
- Significant Content
- College to Career Readiness Skills

PBL: The 7 steps

- Step 1: clarifying unfamiliar terms
- Step 2: problem definition
- Step 3: brainstorm
- Step 4: analyzing the problem
- Step 5: formulating learning goals
- Step 6: self-study
- Step 7: reporting



The seven-step approach



Organizational aspects of PBL:

- How long will each step take?
- How much time we have at our disposal?
- Who is the chair and the scribe?
- Do the roles switch with other participants?
- Which rubrics of formative assessment do I use to analyze the development of the PBL?

The role of the "chair" and "scribe" in PBL.

The chair is the group member ***who structures the discussion*** of a problem or the reporting of the findings. He or she directs the interaction between group members to enable an effective discussion with respect to both process and content.
The scribe supports the chair.

The chair- structure and guidance.
Scribe- support and jotting down.

Step 1: clarifying unfamiliar terms

Unclear terms and concepts in the problem description are clarified, so that every group member understands the information that is given.

Step 2: problem definition

The problem is defined in the form of one or more questions. The group has to agree upon the phenomena that need to be explained.

Step 3: brainstorm

The preexisting knowledge of group members is activated and determined. This process entails the generation of as many explanations, ideas, and hypotheses as possible.
The ideas of all group members are collected, without critical analysis.

Step 4: analyzing the problem

Explanations and hypotheses of the group members are discussed in depth and are systematically analyzed. Ideas from the brainstorm are ordered and related to each other.

Step 5: formulating learning goals

Based on contradictions, obscurities, and ambiguities from the problem analysis, questions are formulated that form the foundation for the study activities of the group members. In short, it is determined what knowledge the group lacks, and learning goals are formulated on these topics.

Step 6: self-study

In the self-study phase, group members search for relevant literature that can answer the questions in the learning goals. After studying this literature, group members prepare themselves for reporting their findings in the next tutorial meeting.

Step 7: reporting

After reporting what sources group members have used in their self-study activities, a discussion of the learning goals takes place based on the studied literature. Group members try to synthesize what they have found in different sources.

A PBL inside a PBL.

Erasmus teachers want to be able to apply the different concepts concerning 21st century skills in their schools and classrooms, they are currently having a course in English, they speak different languages and they want to get the best of their course. How can they make the tactics shared applicable in their schools?

#Exercise

IBL Inquiry Based Learning



#EXERCISE

Spotting Fake News in the Digital Age

What is "fake news" and why do we need to be aware of it?

Inquiry-Based Learning steps

1.Observation/ Orientation:

The instructor introduces a new concept or topic and the students explore the topic through hands-on activities, direct instruction and research.

2. Conceptualise/ Question:

The students generate questions about the topic, hypothesise and do predictions.

3.Investigation:

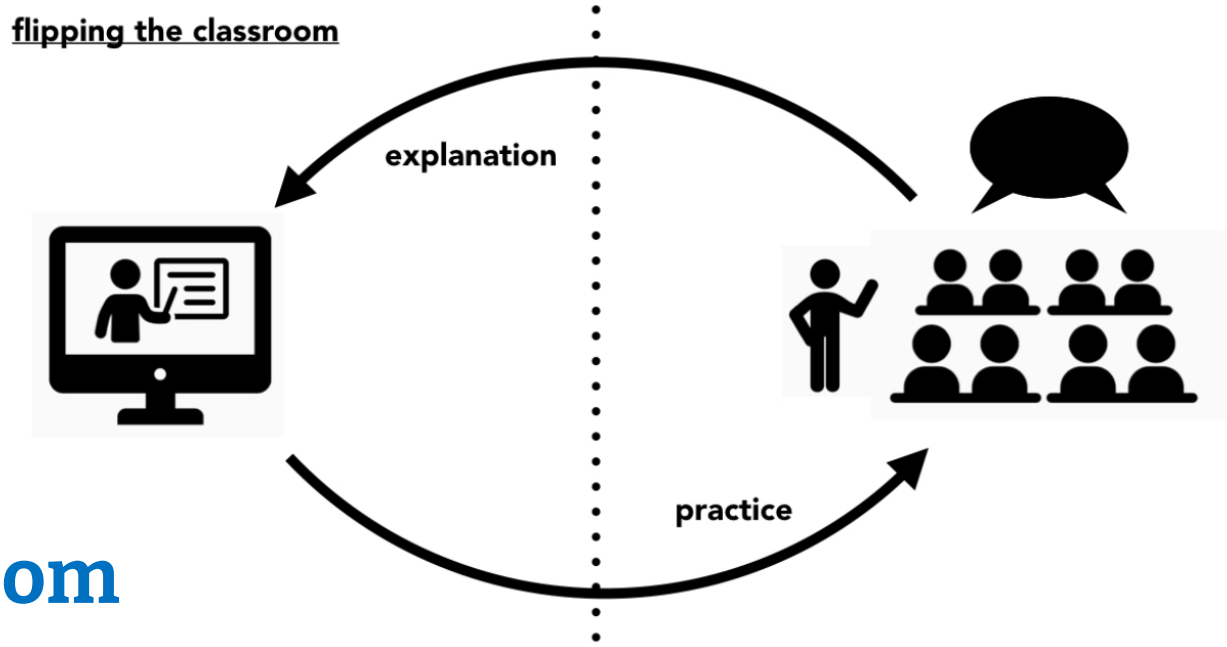
This component of inquiry learning has the longest duration. Students get teachers' support to take the initiative. Also, they find out answers, conduct research and find evidence to support or disprove hypotheses with the teacher's help.

4.Conclusion:

After collecting the data and desired information, students come to conclusions and answers to their questions. They find out if their hypotheses or ideas prove correct or have shortcomings. This may give rise to more questions.

5.Discussion:

At this stage, all pupils may learn from one another while presenting findings. The teacher guide discussions with more questions, encourage debate, and reflection.



Flipped Classroom

Rethinking Classroom Space and Time.

What the flipped classroom looks like:

Bloom's Taxonomy of Learning Objectives: Cognitive Domain

Higher order thinking skills

Creating generate, plan, produce, develop, construct, organize, propose, invent, formulate

Evaluating argue, decide, validate, appraise, evaluate, judge, measure, rank, criticize, rate, select, consider

Analyzing distinguish, contrast, scrutinize, dissect, separate, discriminate, analyze, examine, survey



Lower order thinking skills

Applying employ, execute, implement, practice, calculate, show, demonstrate, translate, illustrate, model

Understanding relate, interpret, classify, summarize, discuss, describe, explain, conclude, compare/contrast

Remembering memorize, define, recite, recall, cite, count, draw, recall, list, name, record, repeat

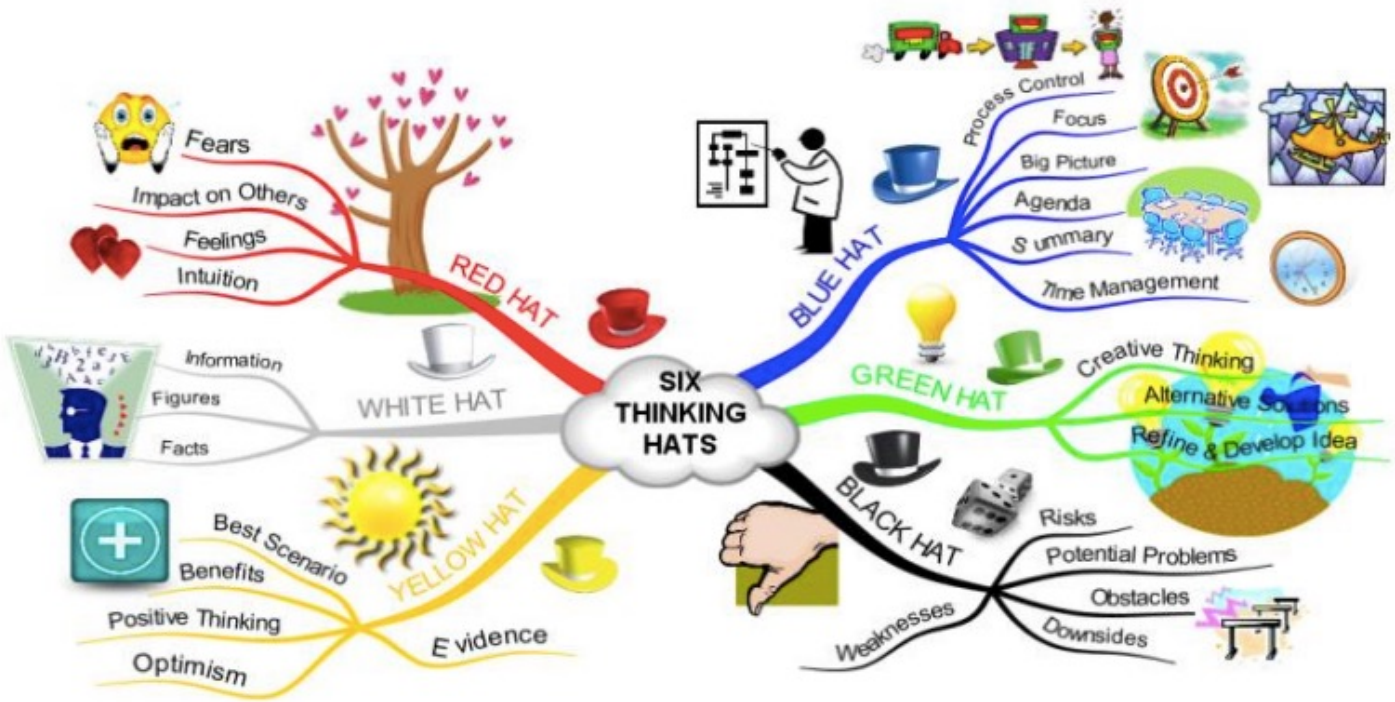


Lower thinking skills at home and Higher thinking skills in class.

Key points

- Collaboration. The Connection
- Content, MAKE the content or FIND the content, Selection.
- Digital Space where to organize the Content.
- Where can they go to access the content?
- An organized digital place where it is organized by weeks, assignments.
- Formative assessment can take place with E-Portfolios. (Docs,Powerpoints,Formularies) all retrieved in a personal E-Portfolio.

Six Thinking Hats: Mind Map



Artful Thinking Palette





Reasoning



Questioning & Investigating

Exploring Viewpoints



Observing & Describing



Finding Complexity



Comparing & Connecting

The Six Hats:



The White Hat:
calls for information known or needed. "The facts, just the facts."



The Yellow Hat:
symbolizes brightness and optimism. You can explore the positives and probe for value and benefit



The Black Hat:
signifies caution and critical thinking - do not overuse! Why something may not work



The Green Hat:
focuses on creativity, possibilities, alternatives and new ideas. It is an opportunity to express new concepts and new perceptions - lateral thinking could be used here



The Blue Hat:
is used to manage the thinking process. It ensures that the 'Six Thinking Hats' guidelines are observed.



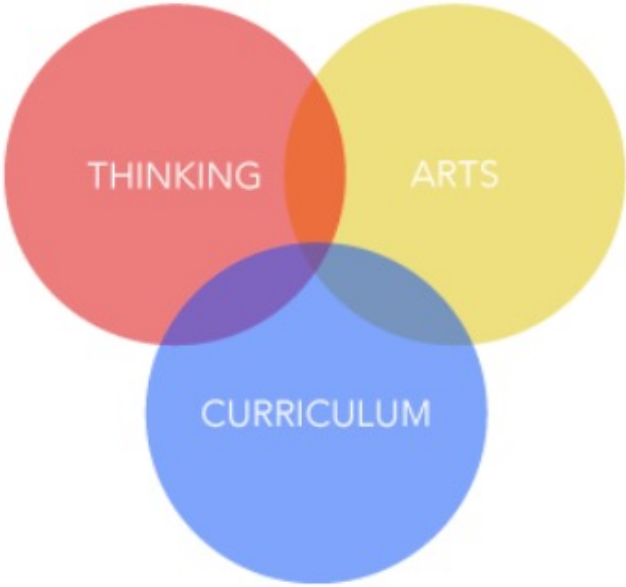
The Red Hat:
signifies feelings, hunches and intuition - the place where emotions are placed without explanation

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What is behing the artful and visible thinking project?

ARTFUL THINKING

PZ
PROJECT ZERO

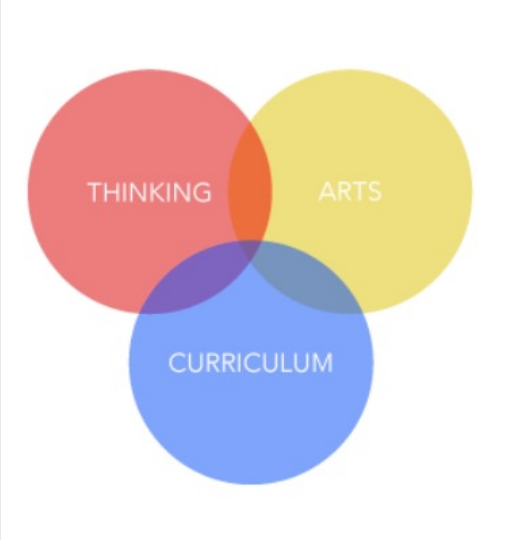


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GRADUATE SCHOOL OF EDUCATION

Creative Strategies: Fishbowl activity

https://youtu.be/WDC3j9ghaYg

Designing your own fishbowl experience

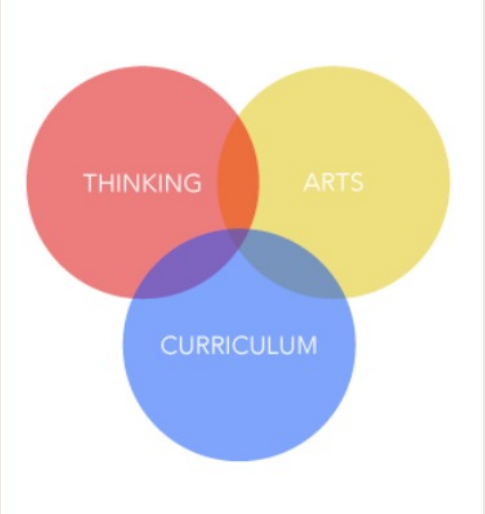


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Creative Strategies: Jigsaw activity

https://www.youtube.com/watch?v=2vlHQnJbN78&t=37s

Designing your own fishbowl experience



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COLOR EMOTION GUIDE



https://www.incredibleart.org/lessons/middle/color2.htm

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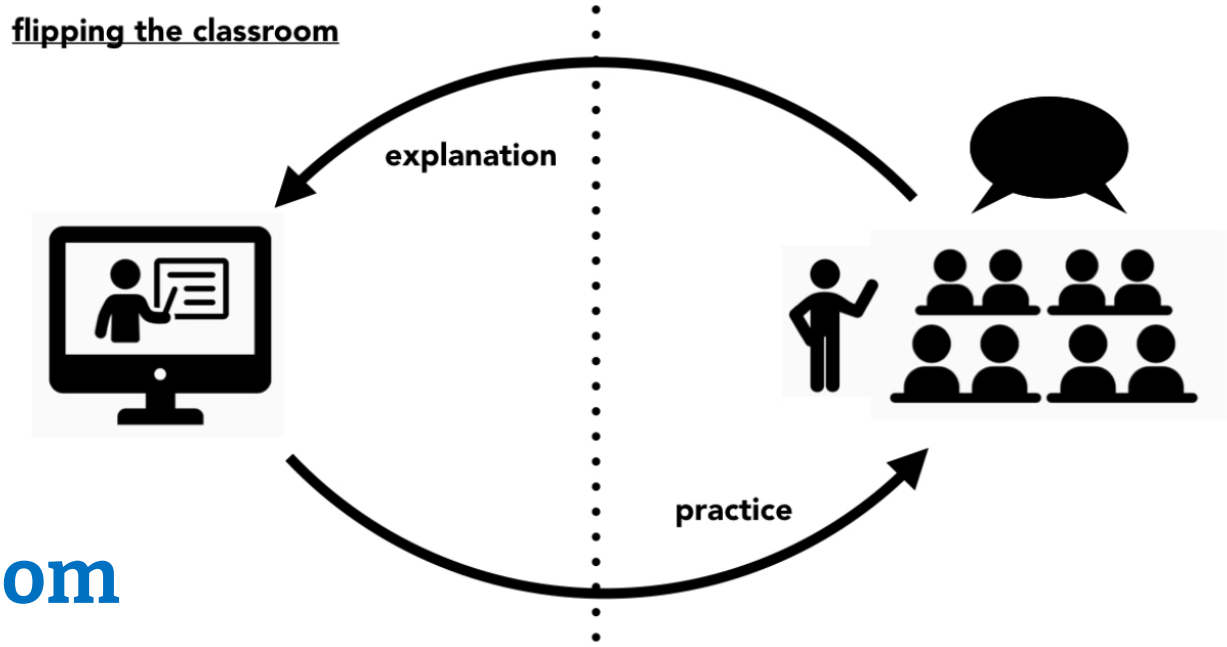
Our own creative project

Stop Motion Studio

For this exercise:

Steps to follow:

1)One person of the group downloads the app ‘’Stop Motion Studio’’
2)Using the animation app, let’s make an animation in which we teach our students about the 21st century skills.



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