



Circular Economy Lab & Observatory

2020-1-IT02-KA201-079994

Flipped Classroom Guidelines

*How to build a flipped classroom experience
on sustainability and circular economy*



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Inspiring a new phase

“Flipped learning pedagogy stems from the premise of inquiry-based and egalitarian philosophy: with the growing access to vast information through the internet, the traditional model of teacher as the sole steward of knowledge has become obsolete”

(Jenkins et al., 2017)



The historical side of it

In the 1990s, Harvard physicist Eric Mazur developed “**peer instruction**”: the students were asked to **study individually before the lessons and then...**

In class, the teacher followed this procedure:

1. teacher **asked a question** about the home-study;
2. students **thought on** the question;
3. students **chose the answers individually**;
4. teacher **reviewed each answer**;
5. students **discussed their decision making** process together;
6. students had a **chance to modify their answer**;



In the end of this process the teacher analysed the answers one more time, and then decided if it was the case to **explain further or move on to the next idea**.

This method is **very similar to how flipped classroom methodology operates even nowadays**, only with more viewing and less reading before class.

A simple definition of Flipped Classroom

“Inverting the classroom means that events that have traditionally taken place inside the classroom now take place outside the classroom and vice versa”

(M.J. Lage, G.J. Platt, and M. Treglia. Inverting the classroom: A gateway to creating an inclusive learning environment. The Journal of Economic Education)

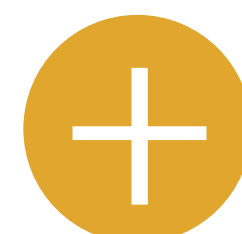
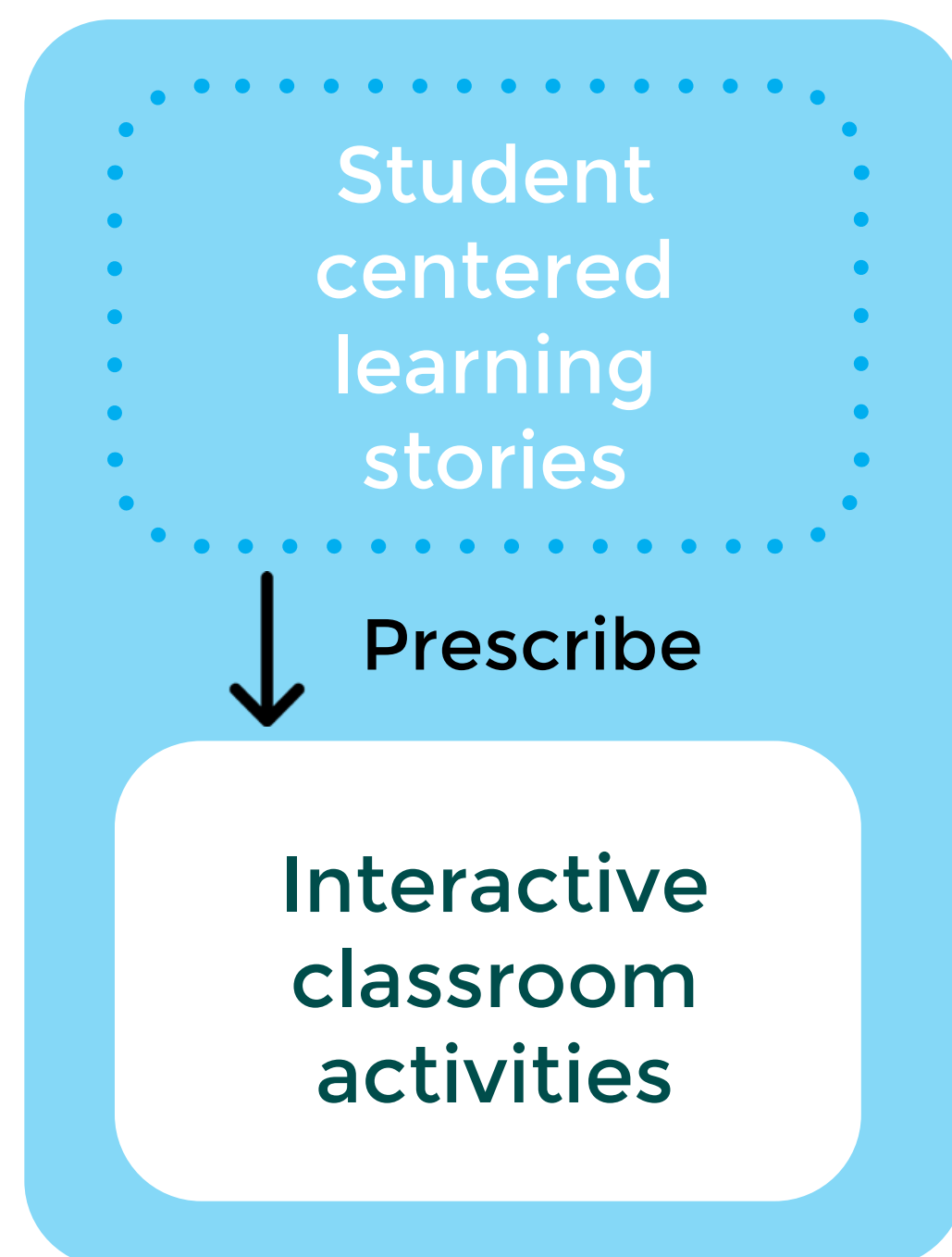
The flipped classroom is an **educational technique** that consists of **2 parts**:

1. interactive group learning inside the classroom or in webinar;
2. direct computer-based individual instruction at home.

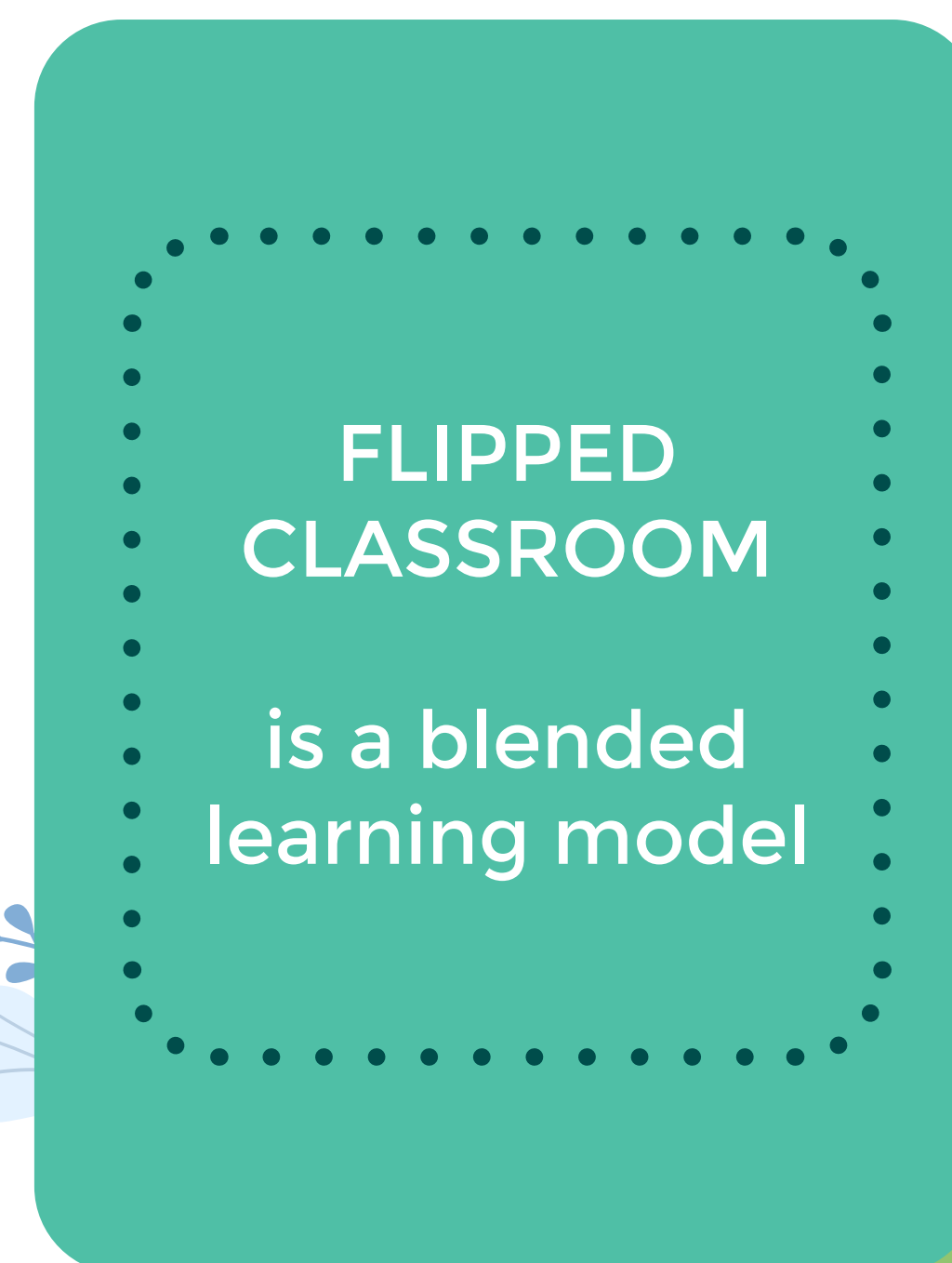
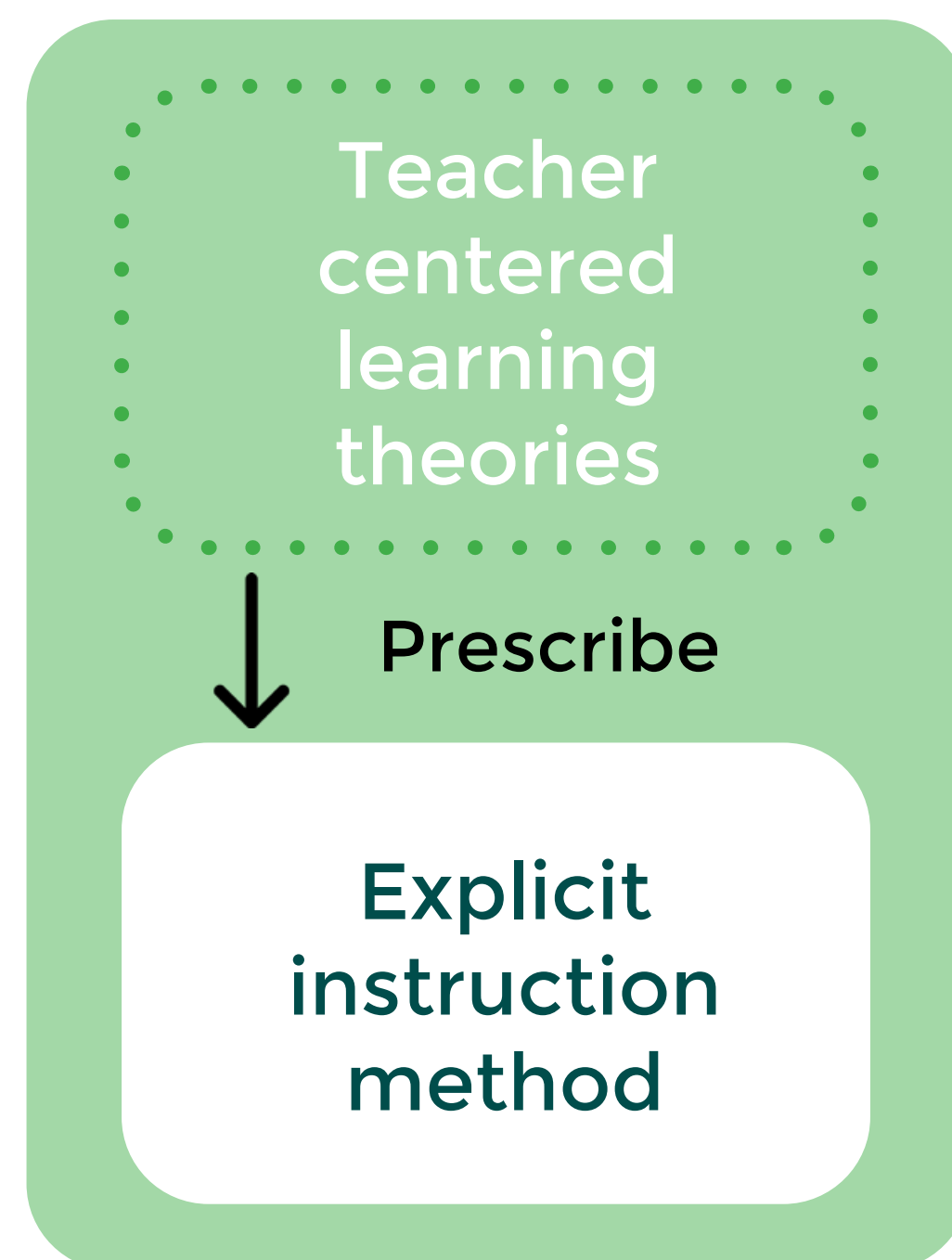


A chart of the flow

HUMAN INTERACTION
IS REQUIRED



CAN BE AUTOMATED
BY TECHNOLOGIES



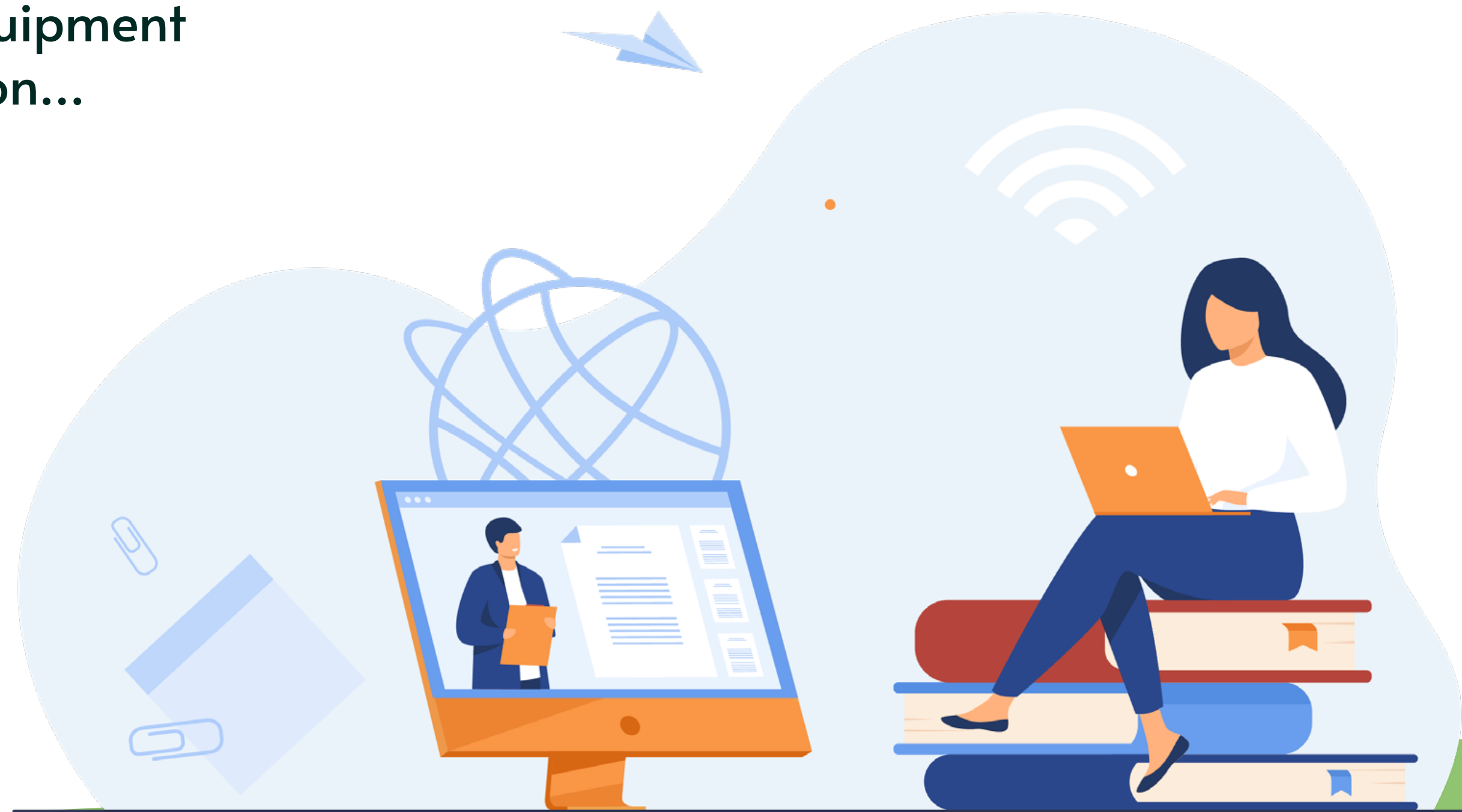
Let's start!

When you need to learn how to do something,
or to cook something unusual, or to use a new equipment
and even to prepare a particularly engaging lesson...

What do you do?

You Google it!

You YouTube it!



Why do we need self-instruction?



Because you know it is the best way to learn
in your own style, at your own pace.

Is Self-Directed Learning the **new learning**?
It certainly is the **NOW learning**:

students in the age of iPads and Google
have been doing this since before they could walk.

Switch the perspective

What would normally be labeled as **‘homework’** is now done **together and interactively** (inside the class or in a webinar meeting) under the careful eye of the teacher...

who can truly do her/his job, as opposed to being useless to the student struggling with the same assignment at home.

Shift from **homework** to **cowork!**



That's what we'll do!

Lecture is shifted to **homework** time:

opening possibilities to a **direct learning** process,
favouring **self-responsibility**,
eliminating classroom distractions
and the need to tell Johnny a dozen times to sit down
and get a pencil out (he doesn't even have one).





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It's Question Time!



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Meet the students first

Before the Flipped Classroom begins, the tutors will have to organize an **informative meeting** with the teachers and the students to...



- invite them to **rush the elearning process** on the platform;
- **show them possible trajectories for self study** and research on the subjects;
- **explain the schedule** of the project and the **Flipped Classroom**.

The teachers' schedule



STEP 1

Share the study plan
and the sources
with the students

STEP 2

Set a time-schedule
for home study
phase and a mid-term
check-up

STEP 3

Lead the final
discussion and
provide support
to the students

STEP 1 – The plan and the first phase

This first step takes place through a **web (or physical) meeting** of the teacher with the class to discuss:

- the **plan**;
- the **sources** (websites, articles, YouTube and Vimeo channels or videos).

The focus group will last **50 minutes**.



Creating the assignment

It will be up to the teacher to provide the students with a **precise and detailed study mandate**, which makes precise reference to the resources to be considered.

The most efficient way is to share a **written document, a pdf, stating:**



- **the additional suggested sources;**
- **the mission;**
- **the deadlines.**

3 strong points for the teachers

1. Let the students **focus on what they really like.**
2. Create an alternative sources list that **covers a wide range of contents.**
3. **Use the platform.**





Other interesting ideas

KEY CONCEPTS

Produce a keywords list to give the students a direction (hashtags are a cool way to do it).

MISCONCEPTIONS

i.e. A lot of people is convinced that plastic is 100% recyclable

Focus the attention of the students on common misconceptions and fake news.

LEARNING OUTCOMES

After studying this subject, the students will definitely be able to...
Try to engage them by telling what the outcome of their work could/should be.



Interaction: the mid-term check point

The mid-term meeting with the students, can be a very good occasion to put a foot in the door of the finale activity:

Create a question

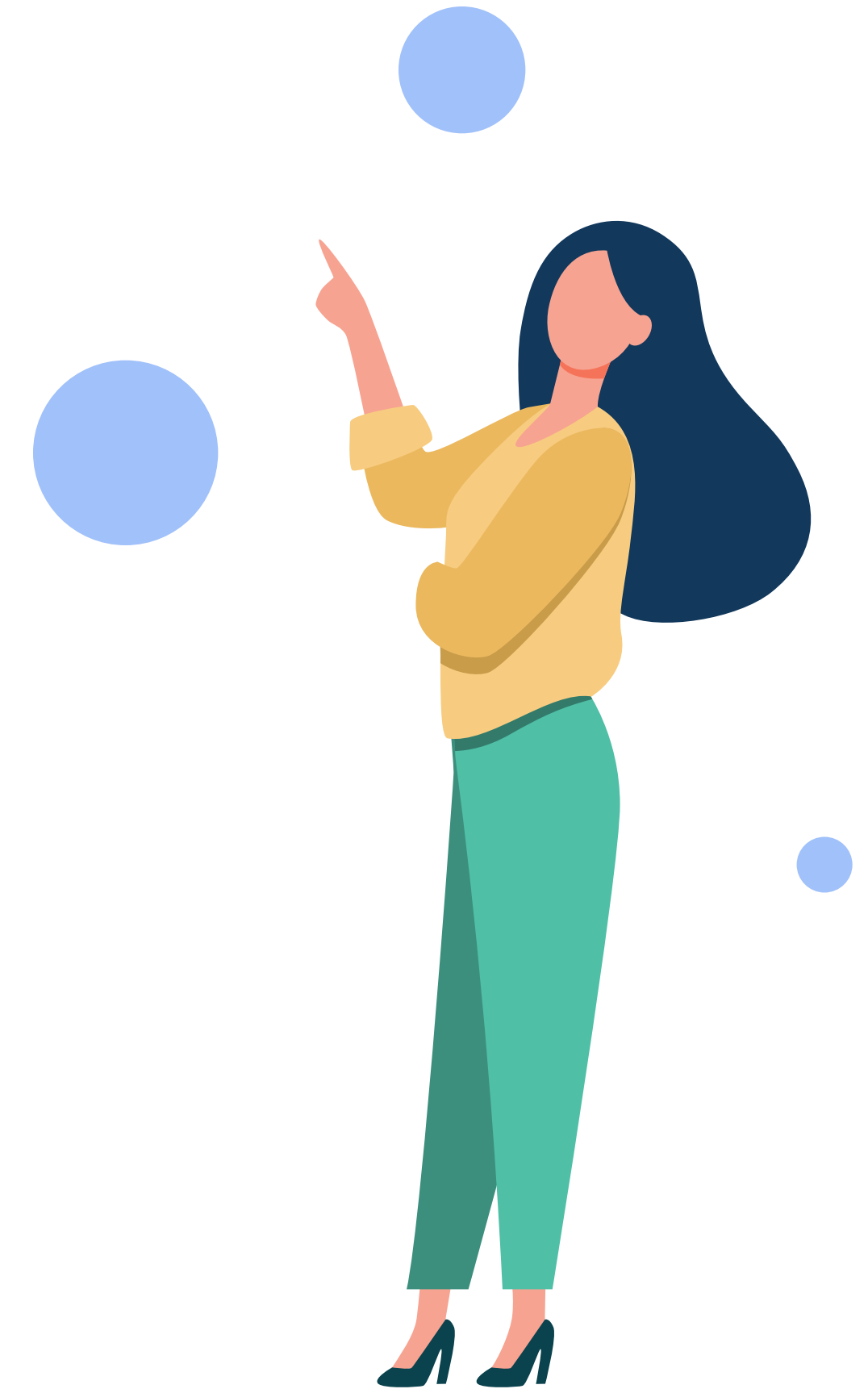
Ask the students to create a secret question regarding the topic their studying.

Deepen the correct answer

Ask them to become expert in answering and explaining their secret question.

Widen the perspectives

The rest is important: their focused subject is not the only thing that the project aims to transfer to them, so they should prepare on the whole perimeter of contents of the learn area.





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STEP 2 – After the mid-term check-up

In this phase the students will build the final part of their knowledge in the flipped classroom experience.

The students will work at home and **prepare their flipped lesson:**

this period ranges **from 1 week to 10 days** normally.



Don't be the map, be the navigator



You have just had a meeting, however this phase has a particular need for your monitoring:

- **set up calls;**
- **ask for intermediate feedback.**

don't make the final date feel too close, but not that far away either.



Progression tips



Monitor

For John “monitoring” could mean “everything okay with that thing?”, while for Patrik it would sound more like “did you manage to read key-words at least?”

Flash focus

Let a random question “fall” into the regular lessons: it will work as a reminder for the most careless and will be an extra motivation for the most involved.

Feedback

When approaching the date of the flipped lesson, ask for feedback.



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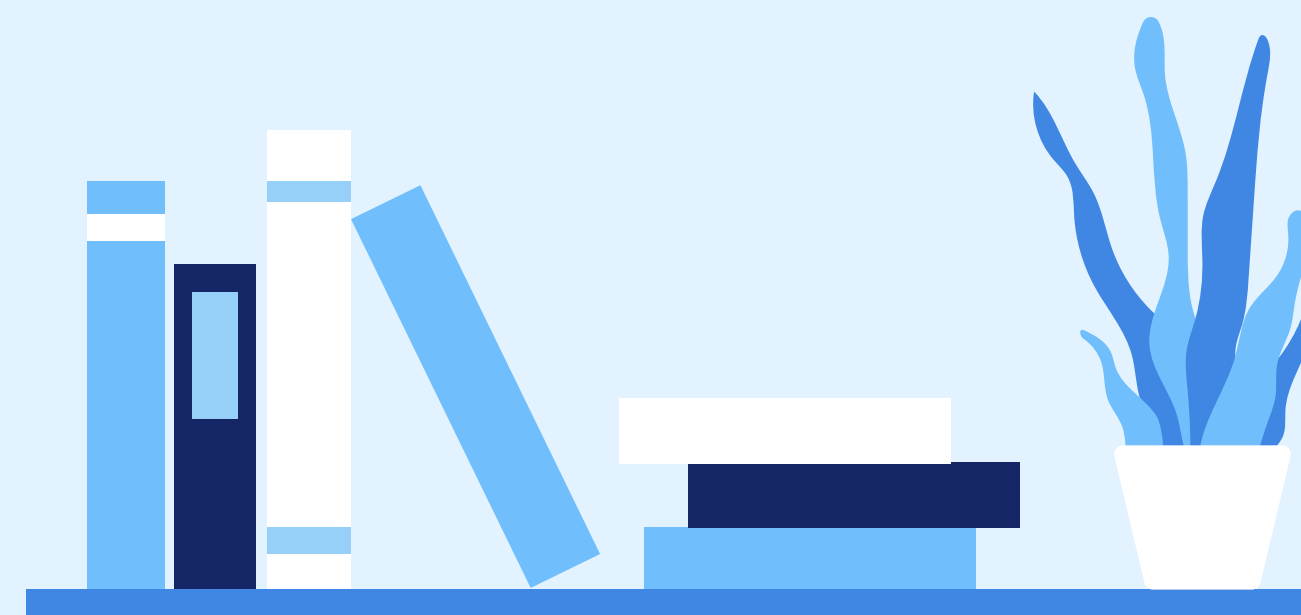
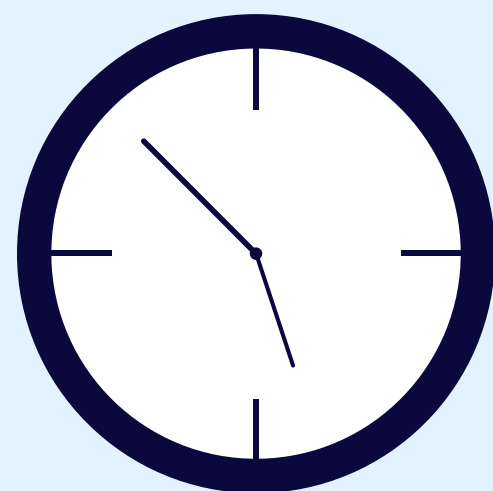
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STEP 3 – Flipped Classroom experience

This final step is the **real lesson**:

the rules for the interaction guarantee the engagement of the students
for a **50 minute session**.



Create interaction – the dream slide

We hope to manage this lesson in a normal classroom and to have a **face-to-face interaction**.

In this case we suggest you to let your discussions be:



Loud

Fussy

Animated

Fun



...you will appreciate a little bit of **healthy chaos**.

Create interaction – the real slide

If your flipped lesson will be held in a web meeting, try to make it as interactive as possible, and while “live” interaction can be noisy, **online it's wise to be disciplined** and make sure making sure **everyone is talking** and **everyone is being heard**.



The interaction thanks to the “back-to-back questions” exercise

- **Pick a match...**
remember the secret question?!
- **Start a fire...**
the relay of questions, answer, explanation is contagious.
- **Count the trees left...**
yes sir, there will be winners after all.



Ted Talks style interaction



- Set a **countdown** timer.
- Every student has **two minutes**.
- The classroom decides **the head-relator**.
- The teacher decides the order of **the “followers”**.

Parametrized Feedback interaction

- Divide the classroom in **two groups**.
- Assign the first group **three secret topics**.
- Let the **group A create the questions**.
- The **group A tests group B** with the questions they edited.
- **Repeat for group B towards group A.**



The aftermath

The flipped classroom activity must **leave its tangible mark**: everything must be **reported properly**.

Don't forget to:

- **press rec** during your webinars;
- **rec live** in case your lessons take place in the real classroom;
- **write reports and essays** (for the teachers);
- **write articles and take pictures** (for the students);
- don't forget to have the **photo and video release of every student** (in case you deal with new members after the elevator pitch, please ask them to fill-in and sign the release).



The newsfeed

- The newsfeed has a precise structure, thus, **for every article** it is important to have also **one or more pictures**.
- The newsfeed can manage videos! If your students are into videos, please **let them create and send their contents**: it will keep the platform alive and let everybody know that the **CiELO project is running and alive**.
- Use the newsfeed as a **trigger to boost the attention of the students**: promote their participation.



The personal research

Don't forget to collect the **personal reports**:

1 report for each student must be edited at the end of the flipped classroom activity, where the student **summarizes their research** and a **brief evaluation** of the activity.

The reports will be collected by FEEM.



What will the students find on the platform

1. eLearning resources (library, masterclasses).

2. Source suggestions edited by the teachers.

3. Tips&Tricks sheets for the Flipped Classroom.



What will the students “give” to the platform



- 1. At least 2 exercises** must be completed and documented (i.e. questions + TedTalks).
- 2. Articles** for the newsfeed (written or vlogs).
- 3. The personal activity and research report.**



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Thanks for your time, your help & your...smiles!



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