AQUATIC LIFE LAB

Project n. 2017-1-IT02-KA201-036817

Co-funded by the Erasmus+ Programme of the European Union

FLIPPED LEARNING

THE FLIPPED-CLASSROOM EXPERIENCE AND ITS METHODOLOGICAL GRID WITHIN THE "ALL" PROJECT

Co-funded by the Erasmus+ Programme of the European Union

WHY?

*"**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)

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Insight

Between history and curiosity

In the **1990s, Harvard physicist Eric Mazur** developed **"peer instruction".** His students prepared to learn before class by reading and answering questions about the material.
In class, the instructor follows the following **procedure**:

1. Instructor poses a **question** on the reading
2. Students **reflect** on the question
3. Students **choose answers** individually
4. Instructor **reviews the responses**
5. Students **discuss their decision** making process with other students
6. Students have a chance to **modify their answer**

Instructor reviews responses again, and then decides whether to explain further or move on to the next idea.
This method is how many flipped classrooms operate even nowadays, only with more viewing and less reading before class.

The "ripple effect"

Clintondale High School in Michigan had the distinction of being **one of the state's worst schools**.
Principal Greg Green and social studies teacher Andy Scheel decided to try something new. They taught identical material in two classes. **One was flipped** and the other was traditional. The flipped class included many students who had already failed the course.
After 20 weeks, every student in the flipped class was passing with at least a C+. The traditional class showed no change in results. In 2011, **Clintondale flipped every class** in the end.

Source: brighthubeducation.com / edited by Tricia Goss

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Insight

The founders of the flipped learning

*"In 2007, Aaron (Sams) and I discovered some software that would record our lectures live. Then in the spring of that year we had an idea for what is now known as the flipped classroom, where we stopped giving the lectures. We committed the following year to prerecording all our lectures, as we now had a bigger vision for that. As a note, we didn't call it the flipped classroom--**we called it pre-broadcasting--and eventually it became known as the flipped classroom.***
*I can say prior to us, in 2000, a couple of professors from the University of Miami wrote an article on what they called the **inverted classroom**. It didn't take off, because I think it wasn't the right time. YouTube wasn't around yet. Even though we came up with the idea in 2007, they probably had the idea, at least as far as I know, originally, but we've been calling ourselves **pioneers in the movement** since we've been the ones in the forefront".*

Jonathan Bergmann, official founder of the Flipped Learning

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 two parts: **interactive group learning** activities inside the classroom, and **direct computer-based individual instruction** outside the classroom.

Sources: thejournal.com / edited by Stephen Noonoo The Flipped Classroom: A Survey of the Research (Lowell &Matthew, Atlanta 2103)

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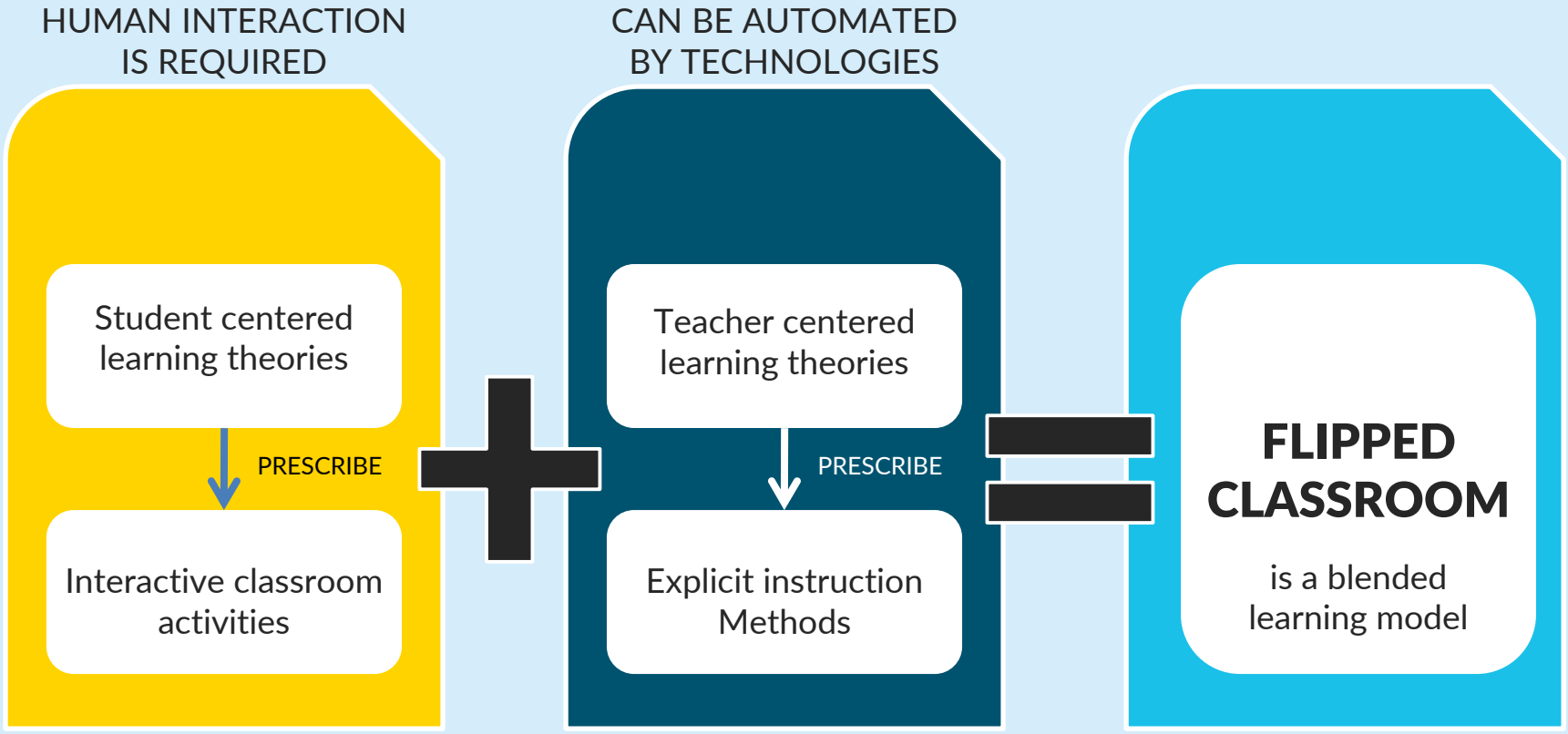
Insight



Sources: The Flipped Classroom: A Survey of the Research (Lowell &Matthew, Atlanta 2103)

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THE STARTING POINT

When you need to learn how to do something

cook something unusual, use a new equipment and even prepare an engaging lesson...

What do you do?

You google it! You YouTube it!

Source: teachthought.com / edited by Josh Corbat

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WHY DO YOU DO THIS?

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

Self-Directed Learning is the new learning.

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

Source: teachthought.com / edited by Josh Corbat

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READY TO FLIP?

What would normally be

labeled as ‘homework’

is now done in class

under the careful eye of the teacher…
who can truly be of service,
as opposed to being useless
to the student struggling with the same assignment at home

Source: teachthought.com / edited by Josh Corbat

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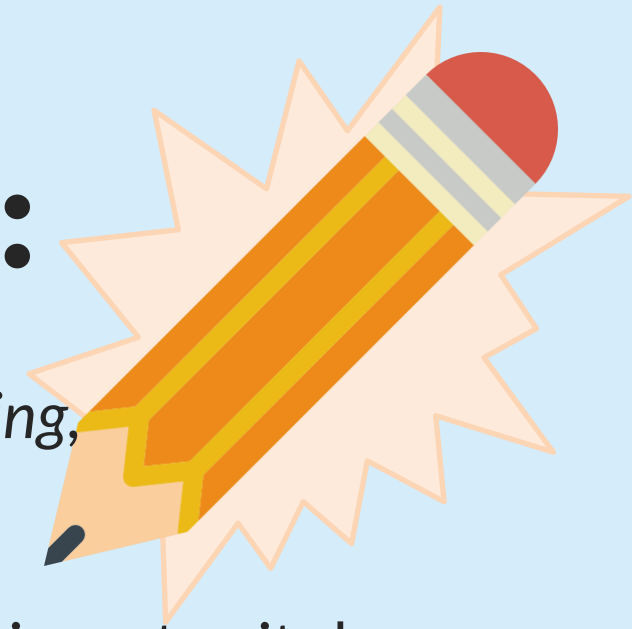
JUST SAY YES ☺

Lecture is shifted to

homework time:



opening the possibilities to direct learning,
favoring 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 have one).

Source: teachthought.com / edited by Josh Corbat

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ANY QUESTIONS?

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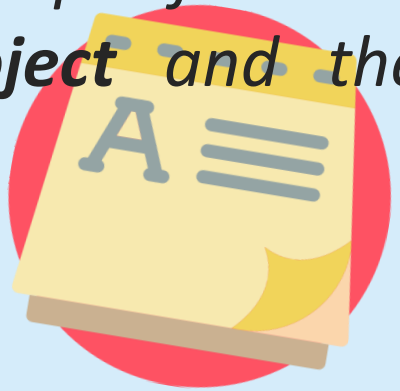
A PRELIMINARY MEETING

*In October, **before the BlueHunt** begins, the tutors will have to organize an **informative meeting** with the classes to...*

1. *Remember them to **download the BlueHunt App***
2. *Show the content **MacroAreas** on the platform*
3. *Explain the **schedule of the project** and the **flipped classroom***



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THE tutor's SCHEDULE

Communicate study programs to students

STEP 1

Let the students find their own paths of knowledge

STEP 2

Lead the discussion in the classroom and provide support

STEP 3

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STEP 1 – *PRE-CLASS*

*This first step takes place through a **physical meeting** of the **tutor with the class** and lasts **50 minutes***

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PRE-CLASS STEP 1

COMMUNICATE THE PROGRAM

The platform is rich in **quality content** to refer to and for students these must form **the basis of their documentation** program; moreover they can refer to the **webinar sessions** recorded and available on the platform.

It will be up to the tutor to provide the students with a **precise and detailed study mandate**, which makes precise reference to the resources to be considered, but we want to give **some more ideas**...

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TO DO STEP 1

1. SPECIFY THE AREA

The contents on the platform are divided into 5 macro-areas: **allow a flipped classroom for each area** and specify to the students where they can find the contents for studying at home and for the flipped-lesson in the classroom.

2. SUGGEST VIDEOS & MEDIA

The edited content on the platform already has **videos and images** as well as written paragraphs: **inform the class about them** and suggest **others** if you can integrate with a **personal contribution**.

3. USE THE WEBINARS

Teacher training webinars are a **valuable material** for further study and thanks to the flipped classroom it can be **brought to the attention of the students**: remember to indicate precisely **which webinar and which part of it** to see.

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OTHER IDEAS STEP 1

1. KEY CONCEPTS

List the **relevant key/foundational** concepts. This can be made in a very schematic and simple way, by providing a **.doc file** that includes the concepts you want the students to focus on synthesized in **key-words**.

2. MISCONCEPTIONS

If the topic can be connected to **wrong ideas** but at the same time diffused in the **common sense**, it could be interesting and attentive to deal with them in the pre-class phase (i.e. plastic as a 100% recyclable material).

3. LEARNING OUTCOMES

Describe what the students **will be able to do after** having learnt this topic (i.e. learning outcomes and tasks they can do/perform).

Source: 7 STEPS to flipping with a framework by the Adelaide University

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BIND TO INTERACTION STEP 1

1. CREATE A QUESTION

To constrain the individual study at home with the interaction during the flipped-classroom, ask the students to **create a question** related to the topic and to **keep it secret**: in step 3 we will see why...

2. DEEPEN THE CORRECT ANSWER

Each student should not only know the answer to his question, but suggest him to widen and deepen the topic linked to the exact answer of his question... We will find out why later in step 3...

3. DON'T FORGET THE REST ☺

Another thing we will see in step 3 is to advise students to also see **all the rest of the program** you have entrusted to them...

Source: 7 STEPS to flipping with a framework by the Adelaide University

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STEP 2 – PRE-CLASS

*This second **pre-class step** is dedicated to the **students** and their work **at home**, where they will prepare their **flipped lesson***
*that will take place in **1 week***

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PRE-CLASS STEP 2

DON'T BE THE MAP, BE THE NAVIGATOR

Students will have a whole week to **prepare the lesson**: **lucky, right ?!** Their teachers usually have to be quicker, but they are also more experienced: their experience will be decisive in keeping the students attention **on the final goal.**

The teachers know the group in detail and the **sensitivities of the individual students**: it will be up to their mastery to find the best ways to **stimulate each one** with the most **suitable levers** for him.

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TO DO STEP 2

1. MONITOR PROGRESSION

Teachers know it: not always the words have the same definition for everyone... 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?“**.

2. IN-CLASS FLASH-FOCUS

Let a random question “fall” into the classroom and stimulate a discussion of **only 5 minutes**, not a minute more and not one less: it will work as a **reminder for the most careless** and will be an extra motivation for **the most involved.**

3. ASK FOR FEEDBACK

When approaching the date of the flipped lesson, ask for feedback by sampling between the extremes: ask and compare the opinion of a dedicated student with that of a student who does not seem too passionate, mix, shake well and... ☺

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STEP 3 – *FlippedClass*

This **final step** is the real lesson: the **rules for the interaction** guarantee the **engagement** of the students for a **50 minutes** session

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FLIPPED CLASSROOM STEP 3

AN INTERACTIVE FORMULA

In the literature there isn't a **unique codification** of the method for conducting a flipped classroom, or better, there are **as many methods as teachers**.

For this reason we thought to create **one more**, to be sure that the students were **forced to interact**, but above all because they were **spurred to study**: we mixed a bit of teaching to the **game-theory** and sprayed with a touch of the **competitive spirit** that sits in everybody.

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TO DO STEP 3

1. PICK A "MATCH"

Randomly select a student within the class: he will be the match that will ignite the powders... This student can **choose who to ask** the question that he prepared at home and **will be the last** to have to answer the question of a classmate.

2. LET THE MATCH START THE FIRE

The student will **verify** if the classmate has answered correctly, but he will also **expand the explanation** for the benefit of the whole class. Now the second student will **choose a target,** and so on, until the last will address the question to the "match".

3. COUNT THE TREES

How many trees have been burned by this fire? We will count them only at the end: each students starts with a score of **5 points** and can lose one in every flipped classroom session **if he doesn't answer correctly** to his friend's question.

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THE AFTERMATH

Everybody hopes that the **flipped classroom leaves its mark**: we will gather **feedbacks** from both teachers and students and **publish them** in the right area of the platform.

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1. CHRONICLES

The feedbacks from teachers and tutors will be collected in this area of the platform: a way to verify **the perceived value** of this experience and to leave a **testimony** to the visitors of the web platform.

2. PEER NEWS

The “PeerNews” is not a section of the site intended to collect only group *selfies*, but it has also the function of fixing **opinions and sensations** related to the actual teaching activity: we will ask students to deal with this **innovative** way of learning and if they would like that it became **customary for their lessons**.

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OPERATIONAL CALENDAR

MONTH	ACTIVITY	ACTORS & LOCATION
Within OCT the 13th	Preliminary meeting	Tutor and students in the school
Within JAN the 12th	Completion of the units on the platform	Students at home
Within JAN the 19th	Program communication for content area n1	Tutors at school
Within JAN the 26th	Flipped session for content area n1	Students at school
Within FEB the 9th	Program communication for content area n2	Tutors at school
Within FEB the 16th	Flipped session for content area n2	Students at school
Within MAR the 16rd	Program communication for content area n3	Tutors at school
Within MAR the 23rd	Flipped session for content area n3	Students at school
Within APR the 13th	Program communication for content area n4	Tutors at school
Within APR the 20th	Flipped session for content area n4	Students at school
Within MAY the 18th	Program communication for content area n5	Tutors at school
Within MAY the 25th	Flipped session for content area n5	Students at school

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That's ALL! ☺

ANY FINAL QUESTIONS?