

Creativity, Innovation, Motivation and New
Teaching Methodologies
Àlex Peso
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1. First steps: discussing privacy

1.1 Google Maps TL

[GMTL](#) shows an estimate of places that you may have been and routes that you may have taken based on your Location History. Once you access your gmail account from any device, google tracks everything you do in [timeline.google.com](https://www.google.com/timeline): where you live, the places you go everyday, the trips you take, etc.

1.2 Connection protocols

Connection secure [https](https://) protocol: encrypted communication.

If you surf [http](http://) websites avoid any personal information, using passwords or making purchases, as everything you do on the site can be externally accessed. (hacked)

2. Power of Youtube

▶ [Let's use video to reinvent education | Salman Khan](#)

Assign videos to your students so that they can actually explain the content to their classmates as if they were the teachers. Watching a video on your own, you can go back and forth as many times as you want and the fear of being judged by the teacher disappears (shyness).

▶ [The Super Mario Effect - Tricking Your Brain into Learning More | Mark Rober | TEDxP...](#)

Message: focus on the nice outcome / final product and not on failure in the process.

▶ [Creativity in the classroom \(in 5 minutes or less!\) | Catherine Thimmesh | TEDxUnivers...](#)

Think of innovation / creativity to solve small everyday things, not big problems. For instance:

BIG CHALLENGES	SMALL CHALLENGES (class brainstorming)
<ul style="list-style-type: none">● climate change● world hunger● water● waste● disease● war	<ul style="list-style-type: none">● same socks finder● button net● never ending pen / pencil● washing save color● tasteful candy (never ending candy, chewing gum)● always charged electronic device● plates that do not need to be washed● automatic shower drain● bottle pressure detector● paintings that emit smell

- life box/ prompt suggestor
- food magical taste (food that tastes the way you want)
- auto cleaning shirt

2.1. Time-framed YT videos

Create an index to each video you want to show / share with your class (time framed). Example:

What is memory foam?

00:00-00:16 - [Introduction](#)

00:16-01:47 - [What is memory foam](#)

01:48-03:24 - [The pros and cons](#)

Shoe-based sensor system for rehab

[00:00-00:11](#) - Introduction

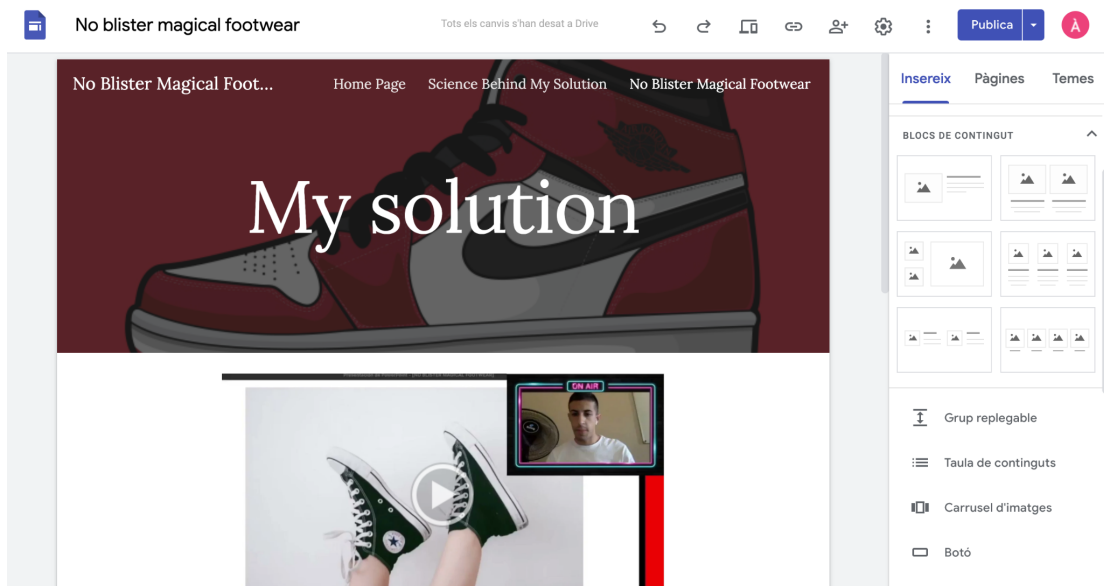
[00:12-02:21](#) - The Project Explained

[02:21-03:06](#) - Results & conclusion

3. Google Sites

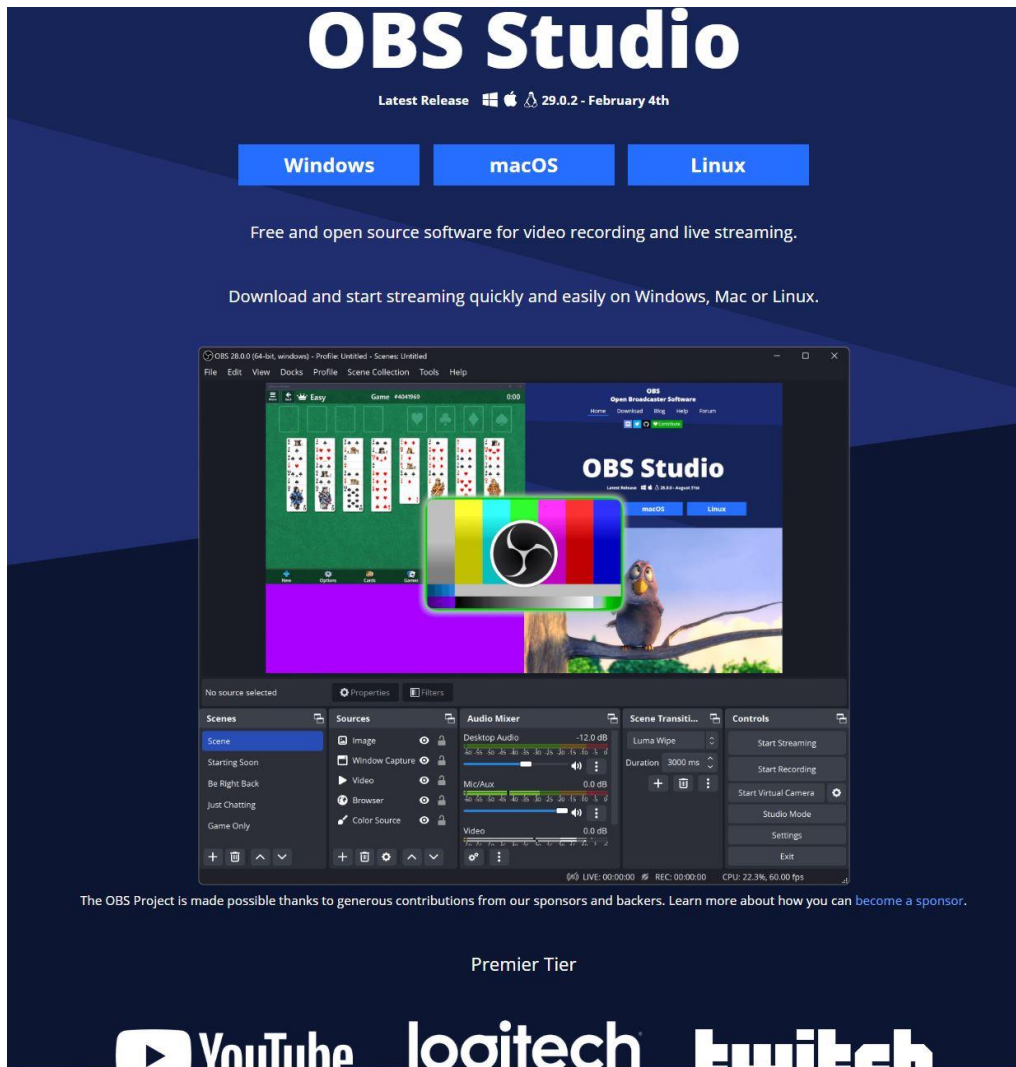
Easily [create](#) a website using [Google Sites](#), which can be accessed from your google drive.

Publish - publication settings : name of your site can be changed and privacy settings adjusted.



4. Creating interactive video lessons

4.1 OBS



OBS (Open Broadcaster Software) is a free and open source software for video recording and live streaming. Here are the basics to create an interactive lesson using [OBS](#):

1 scene, several sources. First source = add> image > background > lock
2nd source > add > video capture device > lock.

Bottom right options > settings > output > check that recording path matches the folder you want to save your video in.

Top left options > file > remux recording > select your video > open. Then left click on top of target file > ... > change name.

Capture content: sources>add> window capture > (name your source) > ok.

Layers in “sources” must be in order. Careful not to hide your camera.

Bottom right > start recording. Go to your content (presentation, video, etc.)

Settings> remux > OBS recording second line > select video > ok. Then target file > left click on file name > “...” > rename it and save > bottom right > remux.

Every source is a “camera” attached to an object in your computer. You should never minimize a window that you want for your recording, as it would not appear in OBS options. If you are using different contents, you might want to hide one or more source layers. Go to sources > left click on eye icon on for the layer you want to hide. Advanced option: OBS > preferences > create shortcuts using hotkeys on your keyboard.

[No Blister Magical Footwear.mp4](#)

4.2. ED puzzle

[ed puzzle](#): A fun way to make a video interactive.

Option 1- St's watch video and answer open-ended / multiple choice questions to proceed or:

Option 2- Launch a game whilst playing video on screen, st's answer questions live on their electronic devices (app needs to be downloaded).

- Steps:
 - create account, teacher, join school (type Miquel Bosch i Jover in search bar)
 - from main page, paste youtube video link in the search bar to open editor
 - give title to your video: top left hand side, click pencil icon and change name
 - inside editor, 3 options: cut, voiceover, questions
 - questions: add queries at any point of the video. Options are open-ended / multiple choice / note (written or voice note).
 - Open-ended: type question. There is an option to allow audio responses. If you want to add another question in the same moment of the video, click on any of the three options at the bottom right hand side.
 - Multiple choice: type question, then add possible answers below. Feedback can be added to each answer (bottom right option in box). Remember to add POSITIVE feedback, e.g. think / try again / give it another try, you can do it!

All progress is saved automatically. To find your projects, from the main page click on three bars top left > my content > videos. Content can be shared everywhere (GC, GSite, etc.), through copying link or through embedded link. In order to add it into our website, we must **embed** the video. To do so: share preview (video must be public) > copy link (embedded, 2nd option).

Back to GSite: options on the right , add > add code. Voilà!

If we share the link directly to GC or GSite, students can do the assignment directly from there.

Another option is creating a class directly on edpuzzle:

Ed Main page > click top left > my classes > add. Class can be linked to GC or: create a new class > enter all details. Class type: classic - st's must log in, open - no login, no account needed.

In your class (**classic**, not open) you have several options: assignments, class members, gradebook. Students will enter class code to join, just as Google Classroom. They'll see their assignments on screen.

As a teacher, select the video from "My content">click bottom right box > assign it to the class. The assignment can be played in live mode or at st's own pace. Both modes work just like kahoot, quizlet, etc. To play live / game mode, the task must be assigned first.

After the assignment is finished, the teacher can see st's performance, statistics and manually grade it.

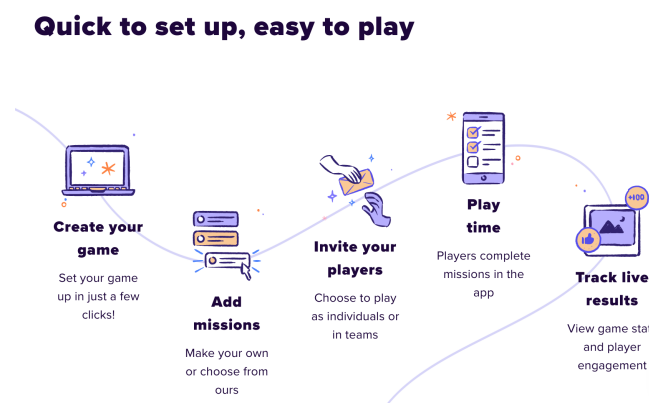
5. Goosechase

Towards the end of the first week we were introduced to a website called [goosechase](#), an online platform that helps you run real-world interactive experiences for communities. Though goosechase was initially designed to be used outdoors, it can be used in a classroom setting as well.

In our case, we first downloaded the app on our phone to play as "students". The first task was useful to get acquainted with the application: tag a GPS location showing we were at school, take a selfie, record a video according to instructions (read a canto from *La Divina Commedia* in Italian). Then, in teams, we played a nice treasure hunt around Firenze. The teacher trainer showed us the tasks, told us to be back in two hours and set us free. He monitored the game from his laptop in the classroom.

Each task had its own instructions and sample pictures. In most cases, we had to look for specific and unusual spots in the city, take a picture, add a caption and process the submission. The trainer would give us instant feedback, for which we received a notification on the phone.

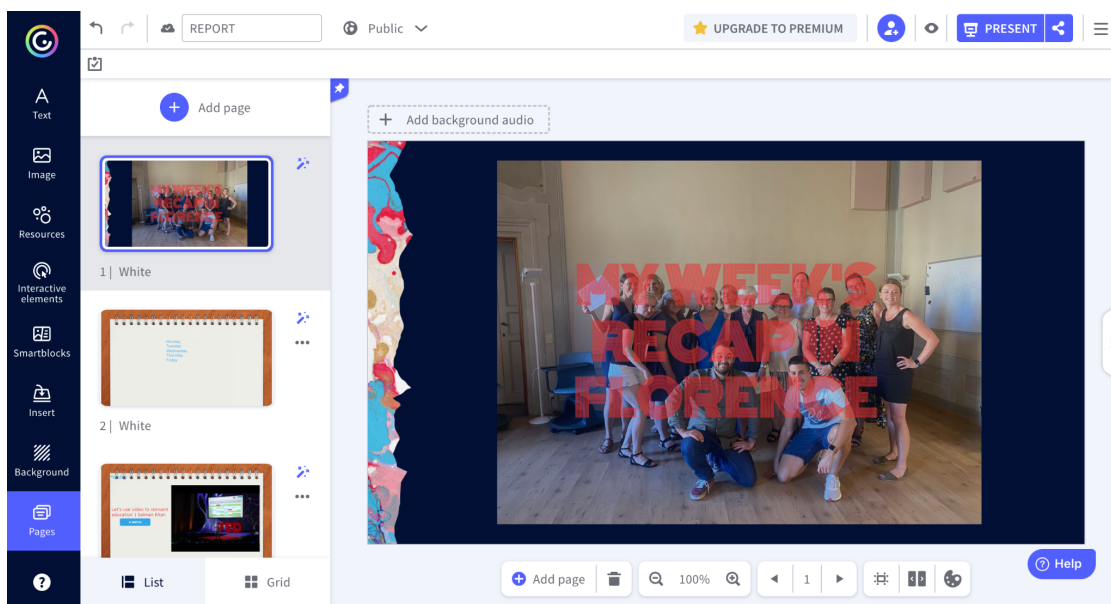
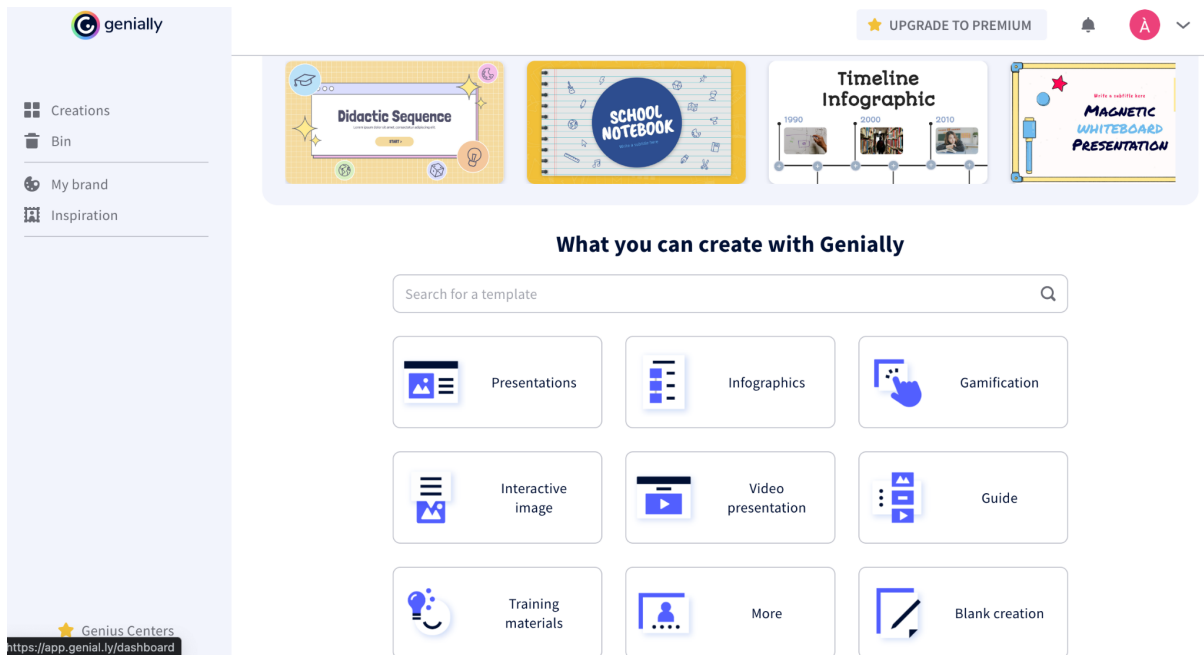
Once we got back, we were shown how to create a game of our own.

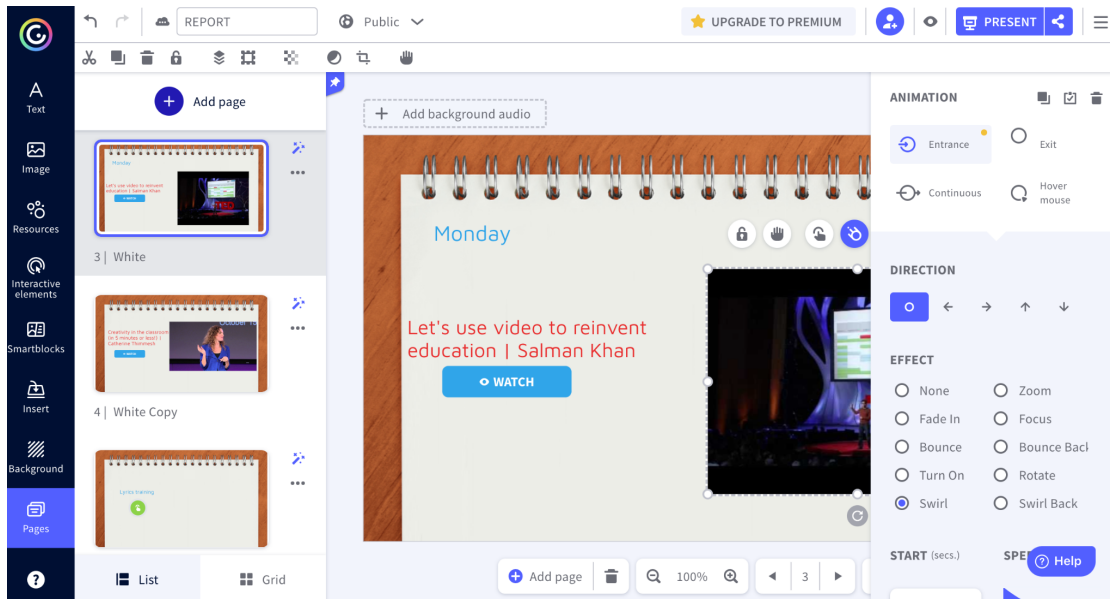


Despite its limitations (individual game - 3 players / team game - 3 teams, multiple devices per team), it is a good resource to make a lesson more attractive, enhancing collaboration among team members to pursue a common goal.

6. Genial.ly

[Genial.ly](https://genial.ly) offers the possibility to create nice interactive presentations, infographics, games and so on. It is all very intuitive once you get hands-on. The last activity consisted in creating a recap presentation of everything seen throughout the week whilst adding animations, interactive and embedded links. Using a free account you cannot keep your content private nor download it, so once you publish your work it goes public and the material must be presented from the site, but genial.ly surely turns slides from dull into engaging.





7. ICT extra resources

Tutorials: [Lorenzo Gaspari](#)

www.moodle.europassacademy.online

[bbc](#) sound effects

[phet](#) > simulations for Math and Science

www.lyricstraining.com - for language learning. Divided in different levels. Fill gaps while song plays. An account can be created to adapt / create your own songs and activities. It has a progress / results tracker.

Lyrics can be printed out without opening an account.

8. The 4 C's in 21stC learning

- **Critical thinking** is all about solving problems.
- **Creativity** teaches students to think outside the box.
- **Collaboration** shows students how to work together to achieve a goal.
- **Communication** helps students learn how to best convey their ideas.

9. Student centered classroom

[Student centered](#) learning should be an **active search for meaning** by the learner whilst **constructing knowledge rather than passively receiving it**– **shaping** as well as **being shaped by experiences**.

In a student centered classroom, learners...

- Are **active** participants in their own learning.

- **Make decisions** about what and how they will learn.
- **Construct new knowledge** and skills by **building on current knowledge** and skills.
- **Understand expectations** and are **encouraged to use self-assessment** measures.
- **Monitor** their own learning to **develop strategies** for learning.
- **Work in collaboration** with other learners.
- **Produce** work that demonstrates authentic (real life) learning that is **relevant** to learners.

In a student centered classroom, instructors...

- **Recognize** and accommodate different learning modalities.
- **Provide structure** without being overly directive.
- **Listen** to and **respect** each **learner's point of view**.
- **Encourage** and facilitate learners' **shared decision-making**.
- Help learners work through difficulties by **asking open-ended questions** to help them arrive at conclusions or solutions that are satisfactory to them.

Comparison of Teacher-Centered and Student-Centered Paradigms (Huba and Freed, 2000)	
Teacher-Centered Paradigm	Student-Centered Paradigm
Knowledge is transmitted from teacher to students in a teacher fronted classroom	Students construct knowledge through gathering information and integrating it with inquiry, communication, critical thinking, problem solving, and so on
Students passively receive information	Students are actively involved as participants
Emphasis is on acquisition of knowledge that isn't applicable to life in the real world	Emphasis is on using and communicating knowledge effectively to address issues and problems in real-life contexts
Teacher's role is to be the primary giver of information	Teacher's role is to be a coach, guide or facilitator
Teacher is the primary evaluator of learning	Teacher and students both evaluate learning
Emphasis is on giving right answers and producing error free work	Emphasis is on many possible answers and learning from errors
Focus is on a single discipline	Focus is on multi-disciplinary investigation
Classroom culture is competitive and individualistic	Classroom culture is inclusive, cooperative, collaborative, and supportive
Only students are viewed as learners	Teachers and students learn together
Assessment is based on passing a test and often includes only summative assessment	Assessment is used to promote learning and includes formative assessment

10 Characteristics of Learner-Centered Experiences



Katie Martin
@KatieMartinEdu

There are **four principles** of student centered learning:

1. **Learning is personalized** (en la medida de lo posible). Personalized learning **recognizes that different students engage differently**. Lessons are **individually paced** and **address students' needs and interests**.
2. **Students take ownership of their learning**. Student-centered learning **engages students** in their own success and **incorporates their skills** in the learning process.
3. **Learning is competency-based**. Students move ahead when they have achieved mastery of content, not when they have reached a certain age or completed the required number of hours in a classroom.
4. **Learning happens anytime, anywhere**. Learning takes place beyond the traditional school day, and even the school year. Learning is not restricted to the classroom.

Tips for keeping student centered and engaging everyone in the classroom. Have them work in a variety of ways: individually, pair work, small group work (3-4 st's), two teams (50%), entire class (100%). Provide your students with **choice** whenever possible. **Choice is motivating** and so is **variety**.

Working in pairs and groups

Introduction

The tendency with students is to treat the class as a whole group and underestimate their ability to work in pairs or in small groups.

The advantages of pair work and small group work

- Gets learners more involved
- Changes the pace of the lesson
- Takes the spotlight off you and puts it onto the students
- Allows students to mix with everyone in the group
- Gives students a sense of achievement when reaching a team goal
- Teaches students how to lead and be led by someone other than the teacher
- It allows the teacher time to monitor, move around the class and listen to what students are doing.

How to set up pair and group work

- Be sure to fully explain the procedure before splitting the class up.
- Always demonstrate either yourself or with the help of a volunteer exactly what they have to do.
- Ask them to tell you what they have to do before they do it to check their understanding.
- Have fill in activities ready for the quick finishers – but be sure that they have completed the task correctly first and haven't just finished early because they misunderstood what they had to do.
- Don't forget to have feedback time after pair work so that students don't feel that they have been wasting time. It's important to share their work as a whole group although this doesn't have to be systematic.
- Set a clear time limit.
- Control who works with who so students aren't always being dominated or dominating others.

10. Classroom management

- It paves the way for the teacher to **engage the students in learning**.
- An **unmanaged classroom makes it difficult** for the teacher to do their job.
- It **provides consistency, routine, and an organized purpose**.
- It **provides boundaries and consequences**.

10.1 Giving clear classroom instructions

“Trainer Blog: Giving Clear Classroom Instructions” Youtube [video](#).

When we are giving instructions, our students must be informed one step at a time. It is a good idea to pause after delivering each piece of key information. Pupils must know the purpose of the activity (why are we doing this?), what they have to do, who they are working with and how much time they have.


10.2 Monitoring

British Council - Teaching Technique - [Monitoring](#)

We must let our students experiment, hence we should not interfere too early. If we do need to interfere: give prompts / tips and then move on. If we notice that our students are holding back it could be because they are too fearful or we might be monitoring them too closely. Sometimes we must lose eye contact and take a step back.

When doing pair work, as teachers we should never become too involved with one of the pairs. If we have a group of 3, a struggling student can act as a wingman. That way the student will feel integrated in the classwork without having as much responsibility.

10.3. Rules

 [How to Involve Students in Setting Up Their Own Ground Rules: Herbert Puchta](#) (

- No negative statements should be included. Make everything look positive.
- Make students participants in rule creating (they can come up with the rules).
- Have everybody sign the rules, including tch.
- Add logical consequences if rules are broken.

Alternatives:

- Make st's fill in and sign a contract.

The Learning Contract	
Teacher	Learner
As your teacher I will...	As a learner I will...
As your teacher I expect...	As a learner I expect...

- Use behavioral and participation rubrics



Participation Rubric

Name: _____

Teacher: _____

	Criteria				Points
	4	3	2	1	
Attendance / Promptness	Student is always prompt and regularly attends classes.	Student is late to class once every two weeks and regularly attends classes.	Student is late to class more than once every two weeks and regularly attends classes.	Student is late to class more than once a week and/or has poor attendance of classes.	—
Level Of Engagement In Class	Student proactively contributes to class by offering ideas and asking questions more than once per class.	Student proactively contributes to class by offering ideas and asking questions once per class.	Student rarely contributes to class by offering ideas and asking questions.	Student never contributes to class by offering ideas and asking questions.	—
Listening Skills	Student listens when others talk, both in groups and in class. Student incorporates or builds off of the ideas of others.	Student listens when others talk, both in groups and in class.	Student does not listen when others talk, both in groups and in class.	Student does not listen when others talk, both in groups and in class. Student often interrupts when others speak.	—
Behavior	Student almost never displays disruptive behavior during class.	Student rarely displays disruptive behavior during class.	Student occasionally displays disruptive behavior during class.	Student almost always displays disruptive behavior during class.	—
Preparation	Student is almost always prepared for class with assignments and required class materials.	Student is usually prepared for class with assignments and required class materials.	Student is rarely prepared for class with assignments and required class materials.	Student is almost never prepared for class with assignments and required class materials.	—
				Total---->	—

Teacher Comments:

Behavior Rubric



Student Name _____

Date _____

Teacher Name: _____

Behavior Skill	Never	Rarely	Most of the Time	Always
On Time and Prepared				
1. Arrives to class on time				
2. Brings necessary materials				
3. Completes homework				
Respects Peers				
1. Respects others property				
2. Listens to peers				
3. Responds appropriate to peers				
4. Respects others opinions				
5. Refrains from abusive language				
Respects Teacher/Staff				
1. Follows directions				
2. Listens to Teacher/Staff				
3. Accepts responsibility for actions				
Demonstrates Appropriate Character Traits				
1. <i>Demonstrates positive character traits</i> (kindness, trustworthy, honesty)				
2. <i>Demonstrates productive character traits</i> (i.e. patience, thorough, hardworking)				
Demonstrates a level of concern for others				
Demonstrates a Level of Concern for Learning				
1. Remains on task				
2. Allows others to remain on task				

10.4 Building rapport

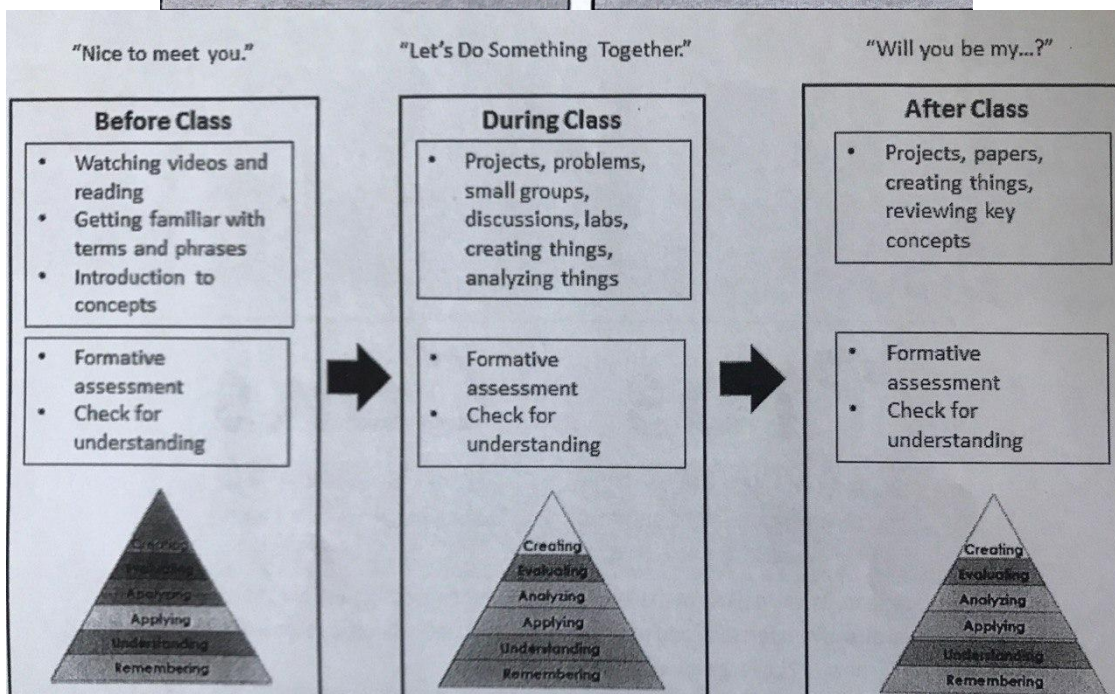
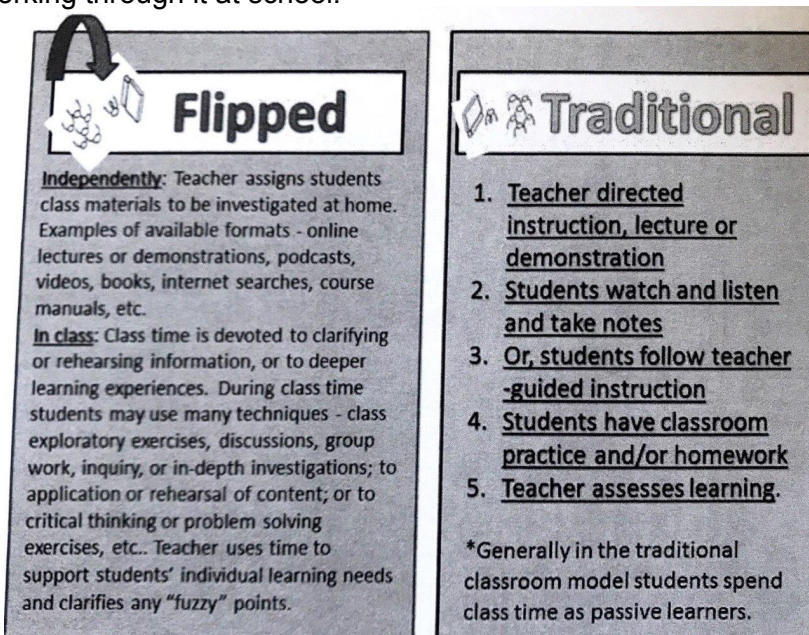
▶ Developing Rapport - British Council - BBC

Teachers need to have a good EAR to build rapport:

- Empathy
- Authenticity
- Respect

11. Flipped Classroom

Schoolwork at home and homework at school. The **Flipped Classroom** reverses the traditional learning environment by delivering instructional content, often online, outside of the classroom. Activities that have traditionally been considered homework are moved into the classroom. A flipped classroom is one where students are introduced to content at home, and practice working through it at school.



Teacher's Guide to the Flipped Classroom



At one time, education was a passive experience in which students sat in class listening to lectures or reading books. While lectures and textbooks are still part of the educational system, they have taken a backseat to flipped learning. In this educational method, internet technology is incorporated into the classroom, freeing up teachers to help students instead of only lecturing them. Flipped teaching shows a lot of promise so far and is likely to become the prominent teaching model in the future.

How Does The Flipped Classroom Work?

- **Technological pre-learning:** In the flipped classroom, the class is not organized around the teacher's lectures. Instead, students are required to learn the material before class, allowing them to clear up any misunderstandings while the teacher is available. This "pre-learning" is often accomplished online, with the teacher posting instructional videos for students to watch at home.
- **Reading and writing:** Students read textbooks or conduct online investigations outside of class. Teachers have them write reactions to the readings or prepare questions to ask during class time.
- **Classroom assistance:** Once students are in the classroom, they are able to obtain one-on-one help from teachers and teacher's aides. The teacher may split the students up into groups to work on projects or hold discussions. Meanwhile, he or she is in the room offering help to students who have questions or who are struggling.
- **Enrichment activities:** The classroom experience may also be supplemented by labs, hands-on projects or field trips. Activities like these are often successful in capturing student interest, making them more likely to continue to study concepts on their own.

What Are The Advantages Of The Flipped Classroom?

The biggest advantage of the flipped classroom approach is the element of active participation. When taught in the traditional lecture-and-note manner, students often grow bored and find themselves interested in everything but the content covered by the teacher. Proponents of the flipped classroom argue that it is better to let students learn the material at their own pace in a comfortable home environment with the help of readings, videos and online material. Then they can pursue interactive learning activities in the classroom while receiving personalized attention from the teacher.

11.1 Flipped Classroom Resources

Corwin, S. (2020). *Flipped Classroom: Everything You Always Wanted to Know*. Firenze: Europass Teacher Academy.

<https://www.teacheracademy.eu/blog/flipped-classroom/>

What a “flipped” classroom looks like - https://youtu.be/G_p63W_2F_4

Why I flipped my classroom - <https://youtu.be/9aGuLuipTwg>

Overcoming Hurdles - <https://youtu.be/bwvXFILQCIU>

<https://flippedlearning.org/>

<https://www.edutopia.org/topic/flipped-classroom>

<http://www.flippedclassroomworkshop.com/bergmann-and-sams-school-of-flipped-teaching-learning/>

<https://www.washington.edu/teaching/teaching-resources/engaging-students-in-learning/flipping-the-classroom/>

<https://www.realinfluencers.es/en/2016/05/23/flipped-classroom-practical-examples/>

<https://www.amazon.it/Flip-Your-Classroom-Reach-Student/dp/1564843157>

<https://poorvucenter.yale.edu/FlippedClassroom>

12. Motivation: Intrinsic vs. extrinsic

Intrinsic motivators (preferred) include fascination with the subject, a sense of its relevance to life and the world, a sense of accomplishment in mastering it, and a sense of calling to it. Students who are intrinsically motivated might say things like the following.

- “Literature interests me.”
- “Learning math enables me to think clearly.”
- “I feel good when I succeed in class.”

Advantages: Intrinsic motivation can be long-lasting and self-sustaining. Efforts to build this kind of motivation are also typically efforts at promoting student learning. Such efforts often focus on the subject rather than rewards or punishments.

Extrinsic motivators include parental expectations, expectations of other trusted role models, earning potential of a course of study, and grades (which keep scholarships coming).

Students who are extrinsically motivated might say things like the following.

- “I need a B- in statistics to get into business school.”
- “If I flunk chemistry, I will lose my scholarship.”
- “Our instructor will bring us donuts if we do well on today’s quiz.”

Advantages: Extrinsic motivators more readily produce behavior changes and typically involve relatively little effort or preparation. Also, efforts at applying extrinsic motivators often do not require extensive knowledge of individual students.

Adapted from www.cft.vanderlit.edu

Resources on motivation:

<https://www.teachthought.com/pedagogy/improve-student-motivation-ideas/>

Experience and hands-on learning

- **Here are some possible strategies:**
 - **Inquiry Based Learning** - starts by posing questions, problems or scenarios rather than simply presenting established facts or portraying a smooth path to knowledge.
 - **Case Based Instruction** - is a teaching method that uses real life scenarios. Students develop skills in analytical thinking and reflective judgment by reading and class discussion.
 - **Problem Based Learning** - consists of real-life problems that challenge students to use problem solving techniques, self-directed learning strategies, team participation skills and disciplinary knowledge. Students acquire a deeper knowledge through active exploration of real-world challenges and problems.
 - **Discovery learning** - Learners draw on their own past experience and existing knowledge to discover facts and new truths to be learned. Constructivism.
 - **Just-in-time learning** - is a pedagogical strategy that uses feedback between classroom activities and work that students do at home, in preparation for the classroom meeting (sounds like flipped classroom).
 - **Task Based Learning** - Based on the following formula: Task (students are given a task to create, design, or produce something). Plan (students plan the task in small groups). Report / present (students report or present their product to the class). [Yt](#) - Creating a Utopian Society.

Project Based Learning in a Nutshell

[Yt](#) - Project-Based Learning explained.

[Yt](#) - PBL and Arts: Empowering Students to Craft Beautiful work.

- Engages students in real world tasks.
- Includes Student-centered, small-group work.
- Simulates a professional situation.
- Incorporates processing of multiple information sources.
- Teacher acts as facilitator for learning and resource guide.

PBL lessons include

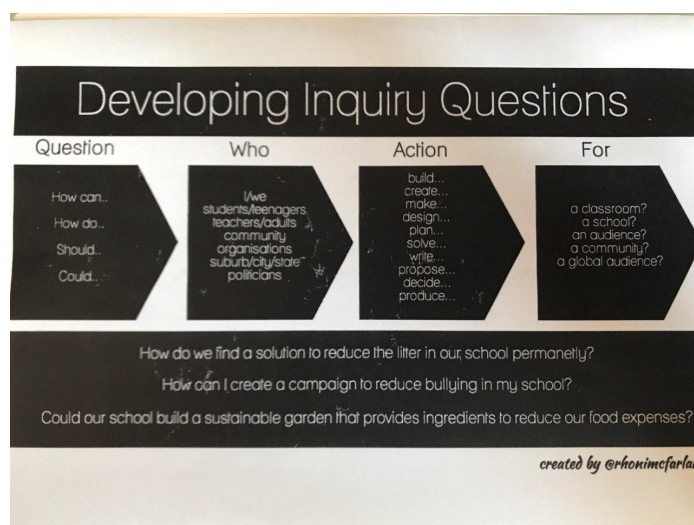
- Attainable goals with driving questions.

- Relevance for the students.
- Regular feedback and **formative** assessments.
- Student choice throughout the project.
- Final products that are shared outside of the classroom.

Possible Project Ideas

1. Create an interactive family tree with voice-overs from living family members.
2. Design an app with a specific purpose for a specific audience.
3. Using the best that's come from major world civilizations, design the perfect civilization. Identify critical characteristics, resources, and habits, etc.
4. Measure the sociological impact of social media on local communities.
5. Plant and manage a garden to feed local homeless / hungry.
6. Solve a problem. This could be an individual, family, neighborhood, city, state, or country problem.
7. Design an alert system to halt the spread of a deadly disease.
8. Redesign the complete school, including new content areas, grading, collaboration and community involvement.
9. Film a documentary on a social issue few people see.
10. Redesign public transport in your city.
11. Develop a brand-new invention.
12. Create and manage a YouTube channel for an education purpose.
13. Help local businesses increase environmental sustainability.
14. Solve your parent's problem of being too busy.
15. Illustrate the global history of civil rights.
16. Plan a school party.
17. Find out all you can about a future profession you'd like to work in.

All projects start with a **driving question**:



A driving question can be...

- **Exploration of a philosophical question**
 - When do we grow up? Who has the power and how do they get it?
- **An investigation of an historical event or time period**
 - Was it necessary to get Americans involved in the Vietnam war? What do we know about life in East Germany before unification?
- **A problem solving situation**
 - How can we improve traffic flow in our city? What should we do about the cold lunches in our school cafeteria?
- **Examination of a controversial issue**
 - Should the public have access to handguns? Should religion be taught in schools? Is war ever justified?
- **A challenge to design, create, or produce something**
 - How can we create a mural that represents our community's past and present?
 - How can we design a website to share our poetry with the world?
 - How can we run a successful book club at our school?

Driving Questions should be...

- **Engaging** to students or at least as much as possible ... **Open-ended** (there is more than one possible answer)... and **aligned with learning goals**.
- It can have a **real world role** for your students. For example:
 - How can we, as tour guides, plan a walking tour of the public art, monuments, or important places in our city?

Driving Questions **should not** be...

- **Google-able:**
 - Which trees grow in our community?
 - What are healthy foods?
 - What are the major forms of modern art?

Instead, turn them into...

- **Open-ended:**
 - How can we create a field guide to trees in our community?
 - Does it matter what food we eat?
 - How can we create a gallery exhibition that explains the history of modern art?