Future Classroom Scenario - Catalonia

Title: Let's invent!

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Relevant trend/s and school vision

Write the trend or trends the Scenario is intended to respond to, and whether they need to adapt to the future or embrace the future indicated by the trend. 1 or 2 trends is normally enough. What is your school vision towards these trends?

The scenario aims at responding to the following trends:

- Project-based learning, as a teaching method in which students gain knowledge and skills by working for an extended period of time to investigate and respond to an authentic, engaging and complex question, problem, or challenge.
- Collaborative learning, as the students work together in small groups on a structured activity.
- Student-centred learning, as the focus of instruction is shifted from the teacher to the student.
- Outdoor learning, as the learning takes place also outdoors.

What level of maturity is the scenario intended to achieve? This should be one level above the current level of maturity on the Future Classroom Maturity Model.

FROM: Current Future Classroom Maturity level	TO: Desired Future Classroom Maturity level
4 Extend - Connected technology and progress data extends learning and allows learners greater control on how, what and where they learn.	5 Empower - The capacity to extend learning and teaching through ongoing whole school innovation, with teachers and learners empowered to adapt and adopt new approaches and tools.

Learning Objectives, Skills and competencies

What are the main objectives? What skills will the learner develop and demonstrate within the scenario? (e.g. 21st Century Skills).

The main objective of this scenario is to transform the students into inventors. The students will communicate and collaborate on planning, problem solving and implementing solutions using their creativity and critical thinking; This scenario aims also at stimulating student's social and cultural responsibility, building their lifelong learning skills and developing their digital literacy.

Learner's Role

What sort of activities will the learner be involved in? How will they progress in achieving their objectives?

Learners will be mainly working in groups to:

- Brainstorm about the challenge they want to work with;
- Discuss on the idea and decide;
- Collect information;
- Build the prototype;
- Design the presentation

Teacher's Role

What will the teacher need to do to guide and support the learning, and ensure the learners meets their objectives?

The teacher will set out the project first and then closely monitor and support the students during group-work, giving feedback and guidance when necessary. Her/his help could focus on an organizational level (phases, timing, pace,).

Tools and Resources

What resources, particularly technologies, will be required? How will they be used? Remember to refer back to the Future Classroom Maturity Model and the level of maturity you want to achieve.

Programming tools and on-line platform (Google apps), tablets & chromebooks; scanner and documents reader; tentative use of 3D printer for models; arts and technology materials

Future Classroom Scenario Narrative

The idea of this scenario is to make the students active learners. Students have to invent something using programming related to a topic which is built from a need in the school or their environment. The project includes the whole creative process, from the initial brainstorming to the final public presentation in a 'inventors summit'. Via this dynamic classroom approach, students actively explore real-world problems and challenges and acquire a deeper knowledge.

At the beginning, the students are introduced to the concept of the idea and educational visits may happen. Then, the students have to spot and understand a problem and start brainstorming collaboratively to find a solution and build a model. At the end, students will prepare the presentation of their creative output which is going to be shared with peers and families of the students.

View the video produced based on the scenario

FCL Regio: Let's invent: An active and collaborative project - Catalonia, Spain