

Engaging students in the learning process through innovation (ESTI)

In addition to the basic traditional education imperatives, it is crucial that students of nowadays develop skills: critical thinking, decision making, collaboration on teams and expanding upon students' natural creativity.

We believe that only an innovative and open minded teacher is able to develop motivated, inquisitive and well prepared students for today's challenges. We think that learning/ teaching through collaborative solving problem (CPS) , inquire based learning, - The BSCS 5E Instructional integrated and based on STEM philosophy teaching, closer connection with the surrounding environment and digital technologies can be used as a contributor of innovative solutions to current improvement of Maths, Science and technology which is one of challenges in education today. Partners belief that media belongs to everyday life of young people, so the use of digital media in education provides extra motivation and is based on students' interests and daily realities.

Our proposal tries teachers will learn to deal with innovative methods and tools in preparing their lessons in Maths, Science and technology, this will allow them not only to make scientific observations within their local environment and gather new data in an intuitive and engaging way, but also to acquire complex knowledge, by collaboratively creating and sharing new information, using open-source tailored educational tools to analyse and reflect on graphical, spatial and mathematical data sets transnationally. Teachers will be able to produce attractive learning materials based on STEM curricula, and suggesting possible extension work across the whole curriculum. Schools will design a guide for teacher training to enable them to create their own projects to use in class, but also will create a live network where reflection on data collected from local environments, implementation of Maths and Technology supported by motivating activities as phenology, augmented reality and collaborative solving problem will lead to an engaging learning experience that will have lasting value through the integrated curricula of future European citizens.

The direct target group and beneficiaries of the project's work and results are teachers, because of their position in changing classroom practices to facilitate and enhance students learning, other target groups are students, teacher trainers and educational authorities.

Main objectives

To explore new forms of teaching, learning and assessment;

To design new didactic approaches and learning materials to motivate children and encourage them to acquire new skills and knowledge in order to improve their interest for learning Science, technology and Maths

To share knowledge, skills and plans among European teachers and European schools

To bring into our schools innovative methods and resources, providing students more attractive school training programmes, in line with individuals' needs and expectations. It'd be based in creative practices putting students at the center (learners' centred approaches).

Outputs

A guide with multimedia resources that includes a teachers training course on CPS, STEM practice and 20 learning scenarios on STEM subjects and new methods like learning by doing, learning fun, cooperative and active learning, improve robotics as a transversal methodology for the study of curricular materials. The guide will include multimedia resources that will bring in school practice innovation, creativity and motivation to young people engage in learning practice and continuing doing it through their life.

The project will reinforce the cooperation with partners from other countries, and will contribute the efficiency in investment of authorities on fields of education, training and youth.

A multi-country partnership brings clear advantages to the project through exchange of knowledge and experience in addressing common European problems. The project complements and fits with the Europe 2020 strategy which acknowledges: a fundamental transformation of education and training is needed to address the new skills and competences for the 21st century. The proposal brings added value at EU level.

Partners

CPI.Cruce- Cerceda - A Coruña-Spain

Miasto Chorzow – Miasto na Prawach powiatu- Chorzow- Poland

UNIREA National College-Turnu- Magurele- Romania

Scuola Secondaria di Primo Grado A. Crisculo- Pagani- Italy

Stokeinteighhead Primary School - Newton Abbot- UK