THE PROJECT

Recent research have demonstrated that early techno-scientific literacy in children as young as 4 years old could improve their long-term achievement in STEM fields and raise the scientific and technological vocations, especially for girls. Competencies acquired during childhood, including design thinking, inquiry, coding and robotics, are transferable to other areas. These skills are applicable to all areas during their whole academic and labour life.

BOTSTEM aims to develop a new methodology for integrating STEM programmes into the formal education curricula for childhood and primary schools (4-8 y.o.), using inquiry teaching and educative robotics and code-learning.

Its main objectives are:
- To improve the potential students’ achievement applied to STEM subjects, particularly in Natural Sciences and Mathematics.
- To implement innovative methodologies, using inquiry teaching and computational thinking.
- To develop tools, resources and methods specifically developed for teachers, more motivating and appealing from the point of view of students from 4 to 8 years old.

BOTSTEM will implement inquiry teaching units with a robot-based approach, including code-learning, for enhancing the education in STEM fields.
BotSTEM TOOLKIT RECEIVES AN INTERNATIONAL AWARD

The botSTEM project received an honorable mention for its educational manual on Robotics and STEM education for children and primary schools in the category Science teaching materials in interactive and non-interactive support.

In October 2019, the International Competition of Ciencia en Acción celebrated its XX edition in Alcoi, Alicante (Spain). In this event, teachers, students, researchers and science communicators participated with the intention of bringing science and technology to the citizens in a dynamic and simple way through innovative ideas.

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BotSTEM-POSTERS

PRESENTED AT THE ESERA CONFERENCE IN BOLOGNA

ESERA (European Science Education Research Association) might be the most significant conference concerning science education worldwide. This year the conference took place in Bologna, Italy, in August on the theme “The beauty and pleasure of understanding: with contemporary challenges through science education”. botSTEM was presented in three posters, representing different topics from the project. One poster, presenting the overall aim and arrangement of botSTEM, was exposed during the whole conference in a section called the EU-corner. Two other posters, presenting experiences and results from the botSTEM activities taking place in Spain and Sweden, were presented at a poster session.
WEBINARS ON PROGRAMMING & ROBOTICS

In October and November, prior to the European Coding Week and the European Robotics Week respectively, two webinars were organized through the VLE platform (https://www.botstem.org) in order to familiarize teachers with the EU Commission supported events. In both cases, a live webcast was prepared using YouTube Live, and it was promoted weeks before by the BotSTEM partners in their countries.

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BotSTEM TRAINING COURSES AND WORKSHOPS WITH CHILDREN

In the frame of the botSTEM project Polo Europeo della Conoscenza is organizing training courses for teachers and educational workshops in pre- and primary schools.

The two training courses for the teachers organized in Verona focus on different topics: robotics versus bullying and creative mathematics. The members of Polo Europeo della Conoscenza are also working inside 3 pre- and primary schools with workshops for the children about robotics.

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