

**RbtsInMath: Developing Mathematics Achievement  
through Using Robotics Applications in Flipped Learning**

Project number: 2022-1-PL01-KA220-HED-000086524

# **Pilot Study of Modular Curriculum REPORT**

**Scuola di Robotica**  
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## CONTEXT

<b>Grant agreement</b>	2022-1-PL01-KA220-HED-000086524
<b>Programme</b>	Erasmus+
<b>Action</b>	Cooperation partnerships in higher education
<b>Project acronym</b>	RbtsInMath
<b>Project title</b>	Developing Mathematics Achievement through Using Robotics Applications in Flipped Learning
<b>Project starting date</b>	01/11/2022
<b>Project duration</b>	28 months
<b>Project end date</b>	28/02/2025

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# Modular Course Curriculum Pilot Study Report

Partner's Name: Scuola di Robotica

Date: 4 Novembre 2023

Place: Headquarter of Scuola di Robotica

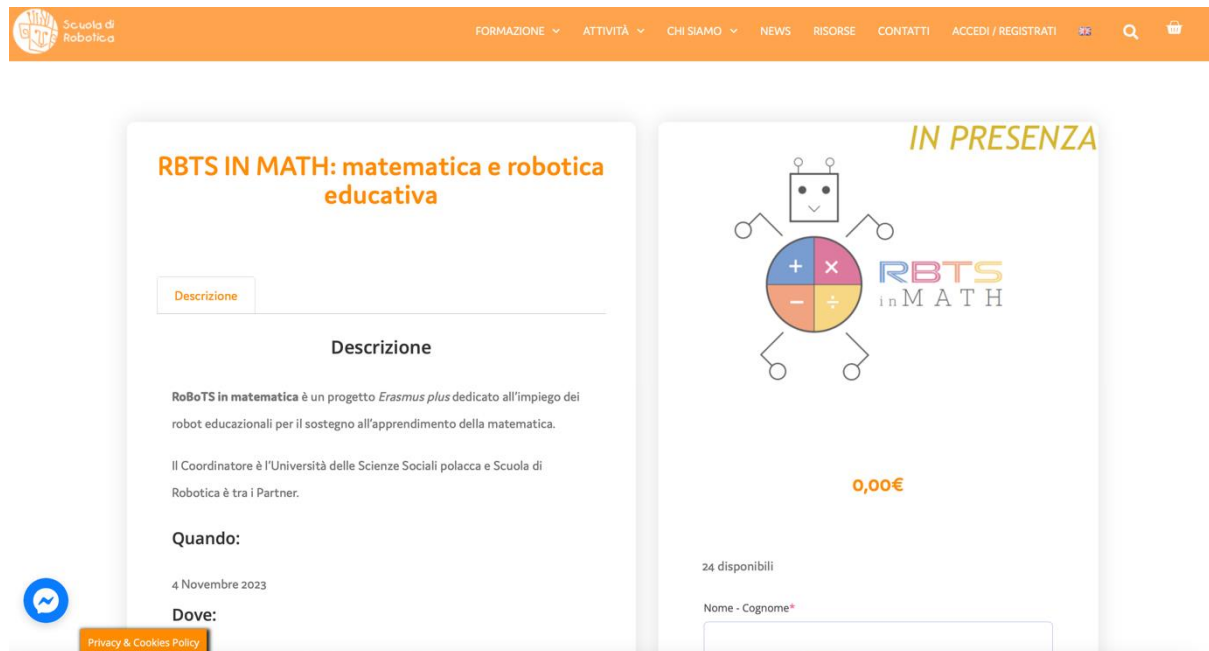
## Aim

The aim of the piloting was to familiarize participants with the main principles of the RbtsInMath project and to introduce them the Modular Curriculum. We involved teachers and pre service teachers. The activities were hands on.

## Introduction to the Piloting

We organize one month before the pilot and disseminate the event on our website.

Link: [https://www.scuoladirobotica.it/product/rbts-in-math-matematica-e-robotica-educativa/?fbclid=IwAR1OU05kWrGnEn9X7oe32tw3J5B07h-rdmuYMI\\_1oE5zhNbCXVDhhVYzpoQ](https://www.scuoladirobotica.it/product/rbts-in-math-matematica-e-robotica-educativa/?fbclid=IwAR1OU05kWrGnEn9X7oe32tw3J5B07h-rdmuYMI_1oE5zhNbCXVDhhVYzpoQ)



To improve the subscription we called different schools connected with our network to engage in the project.

## Profile of Participants

We involved 26 persons:

23 teachers in primary schools

3 university students

24 women

2 men

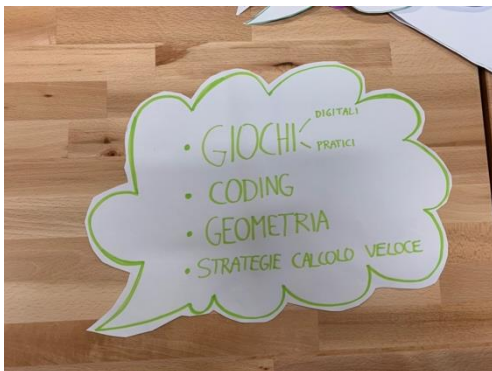
Scuola di Robotica is recognised by Italian schools for the importance of our educational offer for teachers. This is the reason of the majority part of our participants are teachers.

## Overview of the Piloting

During the Piloting we use this presentation:

[https://bit.ly/slide\\_rbtsinmath](https://bit.ly/slide_rbtsinmath)

We introduce participant the first part of the curriculum on methodology and the reason of anxiety with an icebreaking event finalise to understand their motivation in the course connected with the topic of the project.



We organize the course in 4 different session:

Session 1: Introduction to educational robotics and maths anxiety

Overview of the main learning theories, such as constructivism and cognitivism

Exploration of maths anxiety, its causes and how it can affect student learning.

Strategies for dealing with maths anxiety and creating a positive learning environment.

#### Session 2: Learning Maths as a Game

Playful approach to learning mathematics.

Exploration of games and activities that engage students in solving fun mathematical problems.

Discussion of strategies for integrating games into teaching practice and improving students' interest and motivation.

#### Session 3: Using Robotics in Primary School Mathematics Teaching

Analysis of the benefits of using robotics in primary school mathematics teaching.

Exploration of practical examples of activities involving robotics to develop mathematical skills.

Discussion on best practices for integrating robotics in primary school.

#### Session 4: Flipped Classroom and Practices in Primary Schools

Overview of flipped learning and its main characteristics.

Exploration of examples of flipped learning practices in primary school.

Discussion on the benefits and challenges of flipped learning and how to implement it effectively.

## Feedback and Evaluation

During the course all the participant shared the happiness to be engaged in a professional course on math and robotics. All of them were engaged totally in the hands on activities.

At the end of the course they asked more time to use robots and share positive brainstorming ideas.

This Pilot was recognized by our Ministry of education and we created an evaluation form or participants to obtain the certificate:



<https://bit.ly/rbtsinmath>

## Appendices

Appendix 1 – Signed and stamped list of participants

Appendix 2 – Signed and stamped Certificates

Appendix 3 - Photographs or Screenshots







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UNIVERSITY OF SOCIAL SCIENCES



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MĀKSLAS FAKULTĀTE



Scuola di  
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[www.rbtsinmath.eu](http://www.rbtsinmath.eu)