INTEGRATION OF EDUCATIONAL ROBOTICS TO SCIENTIFIC LEARNING TEACHING PROCESS

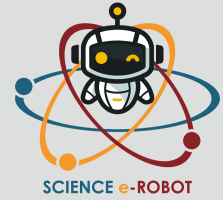## Science e-Robot

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ISSUE 2

Hello to the reader!
Welcome to the first digital newsletter of the Science e-Robot project. The general goal of this 24-month project is; To increase the quality of education by contributing to the integration of technology into the learning and teaching process in order to increase the level of acquisition of 21st century basic skills. You will find details about the project in the following sections. We wish you pleasant reading in advance.

Our Focus!

> It is the relationship between core competencies and scientific literacy.

1.PROJECT GOAL

To develop scientific literacy within the consortium by contributing to the development of basic competencies by integrating educational robotics technology into the scientific learning and teaching process.

PROJECT OBJECTIVES

1. Developing an innovative science learning-teaching strategy compatible with the educational context of partner countries regarding the scientific learning-teaching process in which educational robotics is integrated for target groups by developing 3 intellectual outputs;
2. Increasing the knowledge and skills of 42 personnel from partner organizations on different teaching models, assessment and evaluation and robotic methods/techniques in interdisciplinary science teaching;
3. By organizing 5 large-scale multiplier events and other dissemination activities; developing the knowledge skills of at least 200 Science teachers, 50 pre-service teachers and 100 experts on the use of intellectual outputs developed under this partnership;
4. To develop the basic competence and scientific literacy of students aged 10-17 through educational robotics;
5. To develop long-term innovative cooperation between partners.

IN THIS ISSUE

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TÜRKİYE ULUSAL AJANSI
TURKISH NATIONAL AGENCY

Co-funded by the Erasmus+ Programme of the European Union

2. OUR MAIN ACTIVITIES

- 3 Transnational Project Meetings
- 2 LTTA Activities
- 3 Intellectual Output
- 5 Multiplier Events

3. OUR PROJECT MEETING (TPM-2)

Our 2nd Transnational Project Meeting (TPM-2) was held in Montefiascone on 27 - 28 April 2022, hosted by our Italian partner Istituto Istruzione Scolastica Superiore "CARLO ALBERTO DALLA CHIESA" school. All project partners attended the meeting and there were 14 participants including the host.

The main agenda items of the meeting are; assessing the progress of the project, discussing and planning future tasks, evaluating monitoring reports, discussing dissemination efforts and discussing intellectual outputs.

4. OUR 2nd LTTA ACTIVITY

Our 2nd LTTA activity, which aims to increase the knowledge and skills of the participants on various modern learning-teaching models and assessment and evaluation tools used in the interdisciplinary science learning-teaching process that facilitates the acquisition of key competences and skills of the 21st century, is hosted by our Portuguese partner, Agrupamento de Escolas de Portela e Moscavide. It took place in Lisbon on 21-25 March 2022.

Within the scope of this activity;
From the theoretical framework to the practical field, starting from the second day, by transitioning to learning and teaching models; with considerations and limitations in the use of models for participants' experiential learning; The application process (steps) of each model was carried out in the workshop. In addition, innovative and alternative reference methods and tools that can be used in the measurement and evaluation of learning objectives for each model were presented to the participants.

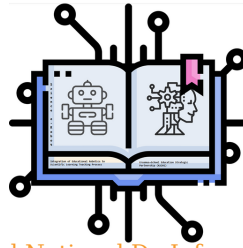As a result of this activity, the following changes in knowledge, skills and attitudes were experienced:
· Comprehended methodological methods in 21st competency and skills-oriented science teaching,
Skills have been developed in methods of facilitating the use of technology in science education practices in different teaching models for personalized and flexible learning,
· The teaching skills and assessment competencies of the participants were supported,
Developed understanding of reinforcing tools, resources and guidance in learning environments,
· In teaching environments; Capacity building to help education professionals transform/enable learning and become competent in applying different approaches,
· There has been an increased willingness to strengthen cooperation between the teaching and learning environments of different partner country organizations in order to ensure the continuity of competence development and the development of innovative learning approaches for students as well as education professionals.

5. OUR INTELLECTUAL OUTPUTS

01

E-WORKBOOK: SCIENTIFIC LEARNING TEACHING PROCESS DESIGN WITH EDUCATIONAL ROBOTIC PATTERN

It includes innovative science activities with robotic content, which are adapted to various scientific themes and sub-topics in different modern teaching models and contain learning-teaching scenarios for individuals and will positively affect the attitude towards science.

02

A METHODOLOGICAL GUIDE TO ADAPTING ROBOTIC ASSISTED SCIENCE TEACHING TO MODERN LEARNING TEACHING MODELS

It will describe the application of robotic patterned science activities in various modern teaching models and provide guidance in the use of open educational resources.

03

COMPREHENSIVE MEASUREMENT AND EVALUATION TOOLKIT

Testing robotic assisted science learning activities; It will provide guidance on assessing their strengths and weaknesses.

SCIENCE e-ROBOT

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6. CONSORTIUM

Hadiye Kuradacı Science and Art Center

T.R. MoNE Special Education and Guidance General Directorate of Services
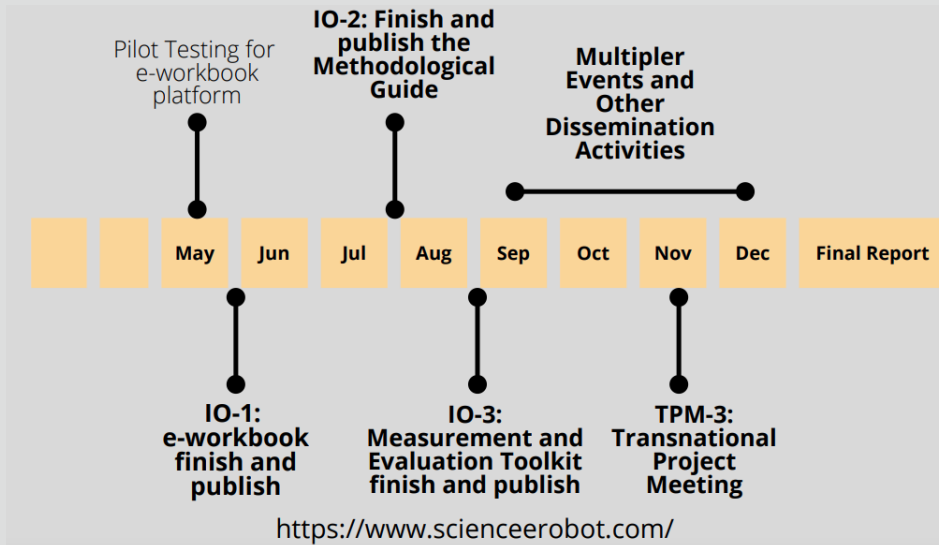
Mersin University

Agrupamento De Escolas De Portela E Moscavide

Istituto Istruzione Scolastica Superiore "Carlo Alberto Dalla Chiesa"

Liceul National De Informatica Arad
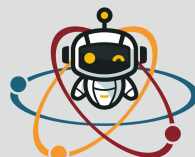
RobyCode UG

7. NEXT STEPS

Pilot Testing for e-workbook platform

IO-2: Finish and publish the Methodological Guide

Multipler Events and Other Dissemination Activities

| | | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Final Report |

IO-1: e-workbook finish and publish

IO-3: Measurement and Evaluation Toolkit finish and publish

TPM-3: Transnational Project Meeting

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8. CONTACT US

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