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Project name: AUGMENTED REALITY EDUCATION MODULE - DEVELOPMENT AND  
IMPLEMENTATION OF INNOVATIVE ICT - BASED EDUCATIONAL TOOL IN STEM ORIENTATED  
SCHOOL SUBJECTS  
Project Acronym: AR EDU





Education is a key element for the social and economic life of the society.

The power of quality education gives results on two levels: 1) the level of personal development of a citizen and 2) the level of development of the society.

The main aim of the project was development and use of new software solution - innovative ICT based educational tool (Augmented Reality - AR learning module) as a non-traditional approach beyond the limits of classic classroom and through it to connect students with STEM oriented school subjects.

### **Main objectives of the project were:**

- to create strategic partnership for transnational cooperation among different socio-economic organizations (education institutions, civil sector and ICT SMEs);
- to improve educational approaches in three secondary schools with new innovative educational tools;
- to increase awareness of the importance of the STEM school subjects;
- to increase students' interest for STEM subjects in school.

### **Specific objectives of the project were:**

- to create a Strategic action plan for transnational cooperation in the field of educational development with help of new innovative educational tool;
- to develop new ICT based educational tool by using of Augmented Reality;
- to increase teachers' computer literacy and competences and skills to use AR learning module and OER;
- to establish Q&A database with STEM related questions and answers;
- to improve students results in STEM subject with help of OER and AR learning module;
- to improve students' teamwork skills through the use of AR learning module;
- to share the best practice in teaching and learning by eTwinning module.

## PROJECT ACTIVITIES

### - FOUR PROJECT PARTNER MEETINGS:

#### First transnational project partner meeting in Kochani on 05.12.2018



#### Second transnational project partner meeting in Ludbreg, 15.03.2019



#### Third transnational project partner meeting in Pazardzik on 09.12.2019



**Fourth project partner meeting** held in Ludbreg, on 24.05.2021, dedicated to evaluation of all project activities.

## **TWO SHORT-TERM TRAININGS FOR TEACHERS:**

### **First short-term training for teachers in Pazardzik from 24-29 of June, 2019**



### **Second short-term training of teachers in Ludbreg from 14 to 19 of October, 2019**





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Национална агенция  
за качество на образованието  
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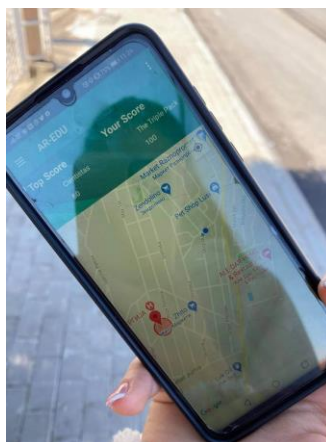
The **Long term teaching assignment** was conducted in order to form the students' teams, create test-competition, test the AR software and finish the manual for teachers for using the AR educational module in STEAM oriented subjects.



The **main competition among students' teams** was conducted during April, 2021.

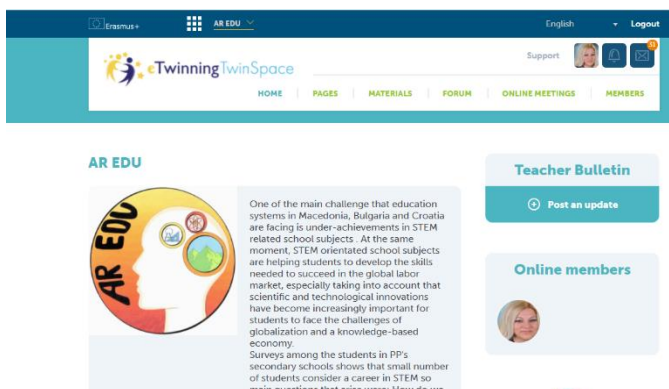


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## E TWINNING PLATFORM

The project has an e Twinning profile and all the creations from the teachers and their students are placed on it.



After finishing the main competition, the students had task to prepare padlets with four story jumpers in order to present their work during the project activities.

The best students' teams from each country were the one who scored the most points from the main competition and the padlet presentation.

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## BEST STUDENTS' TEAMS

### REPUBLIC OF CROATIA – student team LOOMENS



### REPUBLIC OF NORTH MACEDONIA-student team CIENTISTAS



### REPUBLIC OF BULGARIA- student team TEAM GIRLS



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The best students' teams had the opportunity to meet in Kochani, Republic of North Macedonia during the short-term students' exchange.

## PROJECT RESULTS

- Developed new innovative educational tool (**AR educational module**) that can be used in education;
- Developed **Manual for implementation of AR educational module** in STEM orientated school subjects;
- Established **teacher's network by using of eTwinning** module as the main pre-request for further partnership and cooperation in increasing of teacher's skills and competences by exchanging of good practices;
- Created **strategic action plan for transnational cooperation** among different socio-economic organizations in the field of education;

This project was conducted in partnership of seven organizations: Municipality of town Ludbreg (HR), a high tech company Techko Net Dooel- Kochani (MK), three high schools: SOU "Ljupco Santov"- Kocani (MK), PGIM – Pazardzhik (BG) and Srednja shkola Ludbreg, and two NGOs: LAG- Kochani (MK) and CSEG- Pazardzik(BG).

Project web page: <http://ar-edu.eu/>