Future schools using the power of Virtual and Augmented Reality
for education and training in the classroom
VR@School
2018-1-RO01-KA201-049411

Context

Programme: Erasmus+

Key Action: Cooperation for innovation and the exchange of good practices

Action: Strategic Partnerships

Field: Strategic Partnerships for school education

Project Identification

Project Title: Future schools using the power of Virtual and Augmented Reality for education and training in the classroom

Project Acronym: VR@School

Ref. no.: 2018-1-RO01-KA201-049411

Project Start Date: 01-09-2018

Project End date: 28-02-2021

Partnership

Applicant Organisation – P1: Liceul Teoretic de Informatica "Grigore Moisil", Iasi (Romania) - www.liis.ro

Partners:

P2: Fundatia EuroEd, Iasi (Romania) – www.euroed.ro

P3: Make up your business, Iasi (Romania) - www.makeupyourbusiness.com

P4: Pixel Associazione, Florence (Italy) - www.pixel-online.net

P5: CIPAT, Florence (Italy) - www.cipat.it

P6: Instituto Politécnico de Bragança, Braganca (Portugal) - www.ipb.pt

P7: Soros International House, Vilnius (Lithuania) - www.sih.lt

P8: Vilniaus Karoliniskiu Gymnasium, Vilnius (Lithuania) - www.vkg.vilnius.lm.lt

Aim of the project

In today's digital world, teachers are struggling in finding new ways to engage students. When home technologies such as mobile phones, tablets and games consoles are highly advanced, widely available and hugely popular with young children, finding educational engagement with technology in the classroom can be even harder, especially if the technology deployed there is less engaging than that of technology children use at home. Currently, the use of ICT in teaching and learning activities in EU is low, with only about 50% of students being taught by teachers, who use ICT in at least 25% of their lessons.

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Virtual Reality can become an innovation and an added value in school education, can deliver experiences and interactions for students that are either not practical or not possible in the 'real world', provides an unparalleled way to immerse and captivate students of all ages. Virtual Reality can become a teaching methodology which helps students feel immersed in an experience, gripping their imagination and stimulating thought in ways not possible with traditional books, pictures or videos, and facilitates a far higher level of knowledge retention. Enhancing and extending the learning experience is at the heart of what Virtual Reality can offer students, and is possibly one of the most powerful of all technologies that could help change how we learn forever.

Virtual Reality teaching methodology in schools bring a huge impact for different sectors of teachers and students, and we can even more think of how much impact and benefits can bring to the students with lower opportunities, from disadvantages areas/schools, with disabilities, in dropout situations or with poor school performance.

Introducing a new concept in educational technology: Virtual and Augmented Reality, the VR@School project creates a complete different classroom. VR@School is a ground-breaking project offering a student-teacher friendly interface, practical resources and guidelines, embedded educational resources and simple-to-use VR lessons designed to help raise engagement and increase knowledge retention for students.

Target group of the project

In the presented context, the project involves the following target groups:

- Teachers (including science teachers)

- Students (secondary school)

- Students with lower opportunities, from disadvantages areas/schools, with disabilities, in dropout situations or with poor school performance

- School principals

- Trainers in school education

Objectives of the project

Evaluating the target group needs, the project proposes the following objectives:

- Open up teachers to use of new technologies & online educational resources in their classes by offering them a ready-made collection of online tools & platforms to facilitate & the teaching process &attract pupils to become more motivated & involved in learning

- Train teachers with the Virtual &Augmented Reality use in the classroom & motivate them to use this technology in the classroom

- Develop VR lessons for science disciplines & for transversal topics with impact on a student's development such as: motivation to study/ job orientation/foreign languages/inclusive education/ prevention of school dropout

- Guide school principals & teachers on how to implement the VR School Laboratory in their schools

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- Implement VR School Laboratories in the partners' schools & organize simulation lessons for science & transdisciplinary school disciplines using VR

Project activities

O1: Teach@School Online Library - Educational Technology and Open Education Resources
Leader: P2
Period: 01-11-2018 - 30-06-2019
Stage 1: Research on Open Education Resources (OER) to be used by teachers in schools
Stage 2: Catalogued of resources based on implementation categories
Stage 3: Creation of the lesson plans
Stage 4: Pilot with teachers and feedback collection
Indicators:
- 1 Teach@School Online Library
- 40 Educational Technology and Open Education Resources catalogued
- 40 Lesson plans/examples of illustration of the applicability of the resources in a classroom
- 40 teachers involved in testing the resources and provide feedback (10/country)

O2: Teachers Guide on Virtual Reality in school education
Leader: P6
Period: 01-01-2019 - 31-08-2019
Stage 1: Set up of the structure and table of content of the teacher's Guide
Stage 2: Development of the Teachers Guide on Virtual Reality in school education
Stage 3: Video tutorial for the guide
Stage 4: National trainings on the Guide for teachers and trainers
Indicators:
- 1 Teachers Guide on Virtual Reality in school education
- 1 Video tutorial for the guide
- 4 national trainings on the Guide for teachers and trainers
- 80 teachers and trainers trained on the use of the guide (20/country)

O3: VR Educational Resources for science and transdisciplinary school disciplines
Leader: P3
Period: 01-09-2019 - 30-06-2020
Stage 1: Set up of the disciplines and the lessons didactic topics
Stage 2: Development of the didactic content of the lessons
Stage 3: Filming and collection of multimedia data from the nature for the lessons
Stage 4: Editing of the VR educational lessons
Stage 5: Pilot with teachers and feedback collection
Indicators:
- 40 lessons in science disciplines + 5 lessons on transversal topics
- 8 teachers involved in testing the resources and provide feedback (2/country)

O4: VR School Laboratory *(not approved as intellectual output)*
Leader: P1
Period: 01-01-2020 - 28-02-2021

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Stage 1: Development of the Guide for Implementation of VR in schools for principals and teachers
Stage 2: Creation of Network of schools/school principals/educational centers to be reached by the Guide for Implementation of VR in schools
Stage 3: Implementation of the VR School Laboratories
Stage 4: Development of Simulation Lessons using VR@School with students and teachers
Stage 5: Collection of feedback & testimonials from students and teachers
Indicators:
- 1 Guide for Implementation of VR in schools for principals and teachers
- 5 VR School Laboratories
- 40 Simulation Lessons using VR@School with students and teachers
- 50 teachers involved in the VR School Laboratories (10/country; 20 in Romania)
- 200 students involved in the VR School Laboratories (50/country)
- 20 schools/school principals/educational centers reached by the Guide for Implementation of VR in schools

Learning/Teaching/Training Activities:
- C1. Use of VR for teachers (5 training days, held in Romania)
- C2. How to implement VR laboratories in your school, for teachers and school principals (5 training days, held in Italy)

Multiplier Events
- 4 Multiplier events - VR@School - Virtual and Augmented Reality for education and training in the classroom (one in each project countries, 120 participants)

Dissemination & Sustainability
1 website - annual number of visitors equal to or higher than 500;
1 Facebook page - with at least 400 members;
1 project brochure;
1 project poster;
240 dissemination actions;
over 2000 people informed on the project