Design and Evaluation of an Augmented and Virtual Reality Flipped-Learning Course for K-12 Educators

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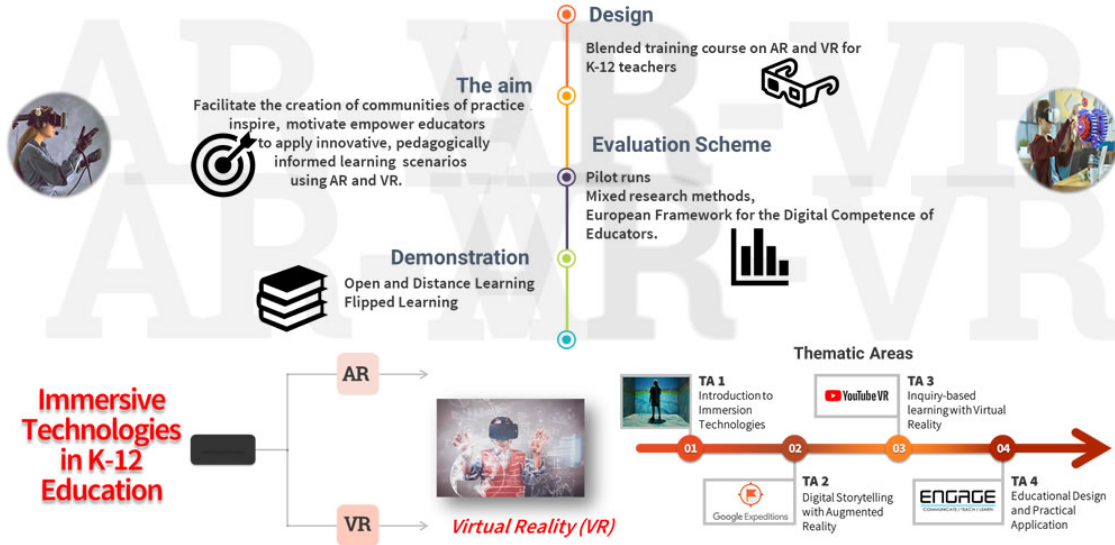maria.fragkaki@ouc.ac.cy

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Training teachers to develop digital skills

Outline

Design
Blended training course on AR and VR for K-12 teachers

The aim
Facilitate the creation of communities of practice, inspire, motivate empower educators to apply innovative, pedagogically informed learning scenarios using AR and VR.

Evaluation Scheme
Pilot runs
Mixed research methods,
European Framework for the Digital Competence of Educators.

Demonstration
Open and Distance Learning
Flipped Learning

Immersive Technologies in K-12 Education

AR

VR — *Virtual Reality (VR)*

Thematic Areas

TA 1 Introduction to Immersion Technologies
TA 3 Inquiry-based learning with Virtual Reality
TA 2 Digital Storytelling with Augmented Reality — Google Expeditions
TA 4 Educational Design and Practical Application — ENGAGE

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YouTube VR

Teacher Digital Competence Development: The Case of Cyprus

The Cyprus Pedagogical Institute initiated a five-year K-12 teachers training programme on digital competence. The programme features ten training courses. Each course has a duration of 8 weeks and awards 2 ECTS that correspond to fifty hours of total study effort. After a successful tender, the authors, affiliated with the Open University of Cyprus, undertook the design and development of the course "Augmented and Virtual Reality in Teaching and Learning".

Design of a Blended Learning Course for Augmented and Virtual Reality in Education

✓ Pedagogically-informed
✓ Authentic content exploration
✓ Critically-Reflective enhanced
✓ Immersive technologies empowered

A. Course Outline and Content

B. Instructional Design
✓ Collaborative learning strategies
✓ Flipped- classroom model
✓ Short video lectures
✓ Educational material (articles, chapters, guides, web pages and guides)

Participants:
✓ Reflecting critically on the material
✓ Participating in discussions
✓ Interacting with other members of the group through asynchronous self- and peer-evaluation activities

Project's Deliverables:
✓ Classroom activity (photos, evaluation sheets, digital artifacts).

Implementation:
✓ Open and Distance Learning
✓ Blended Learning
✓ Flipped Classroom Learning

✓ Blended e-learning
✓ Rapid, flexible, remote, simultaneous training of multiple cohorts of educators

C. Delivery method

D. Course's Instructors Role
✓ Adults' Trainers
✓ Namely mentors
✓ Critical friends
✓ Facilitators of the learning process

E. Development of Educational Material
✓ Increased Interest
✓ Inspiring Graphical Design
✓ Multisensorial Design
✓ Minimum cognitive overload