EXPERIMENTAL JUNIOR HIGH SCHOOL OF RETHYMNO, UNIVERSITY OF CRETE

VR/AR Classroom Transformers: Innovative Inclusive Practices and Student Voice in the Classroom

Participating Educators: Konstantinos Sipitanos (Coordinator), Emmanouela Karapidaki, Eiri Renieri, Ioannis Markantes

1. INQUIRY & NEEDS

The rapid growth of the digital landscape has highlighted a widening gap between teachers (Generation X & Millennials) and digitally 'native' students (Generation Z & Alpha) who often find traditional schooling passive.

Additionally, there was a pressing need to actively support students with special educational needs (such as dyslexia) in inclusive environments. By shifting from traditional written expression to immersive, multi-sensory technologies, we sought to minimize learning anxiety, promote student autonomy, and elevate student voice.

2. PROJECT OBJECTIVES

To address these needs, our school defined four central objectives:

✓ Integrating Immersive Tech: Seamlessly embedding innovative technologies (VR/AR, 3D printing pens, and 360-degree photography) into daily classroom curricula across various disciplines.

✓ Advancing Inclusion & Equity: Offering highly visual and experiential learning pathways that bypass traditional text-heavy barriers for students with learning differences.

✓ Empowering Student Agency: Giving students full ownership of their learning by enabling them to co-create digital artifacts, express their stories, and engage in peer collaboration.

✓ Connecting Technology and Society: Harnessing modern digital tools to explore critical historical, ecological, and democratic citizenship themes.

3. DEMOCRATIC CITIZENSHIP

This initiative placed equal opportunities and inclusion at the very heart of the educational process, ensuring that every student is heard and valued.

By co-designing learning scenarios and working in diverse teams, students practiced collaborative decision-making, negotiated collective outcomes, and cultivated critical thinking. The integration of technology became a direct vehicle for democratic practice, where the classroom transformed from a rigid environment into a micro-society of shared voices and active civic participation.

"Technology in education is not an end in itself, but a bridge of inclusion and self-expression that gives a voice to every student, making the classroom truly democratic."

4. RESOURCES & SUSTAINED IMPACT

- Project Blog: https://gymaei-reth.weebly.com/erasmus.html
- Lesson Plans: Interdisciplinary lesson plans such as 'Journey to the Magical World of Space' are integrated into the Greek state digital platform (e-class) as open educational resources.
- Digital Memory: 'Erasmus VR Memories' on Padlet serves as a living, permanent archive of the student-co-created digital collages, 3D pen artifacts, and travel vlogs.

5. IMPLEMENTATION STAGES

The project was executed through a highly structured 5-step methodological path:

1. PREPARATION & ORIENTATION: Prior to student exchanges, 'Saying Hello' linguistic and cultural workshops were conducted. Students engaged with their peers abroad using collaborative digital boards to build communication confidence.

2. INCLUSIVE DIGITAL INTERVENTIONS: In the classroom, dyslexic students utilized assistive text-to-speech tools (such as Text Grabber) to read 'The Diary of Anne Frank' at home. Converting printed pages into editable, adjustable audio formats eliminated reading anxiety and promoted independent learning.

3. CREATIVE STEM CO-DESIGN: Students unleashed their creativity through 'My Impression Showcase' digital collage workshops and hands-on 3D printing pen activities. They reconstructed physical models inspired by ancient Minoan, Archaic, and Classical art.

4. EXPERIENTIAL FIELD RESEARCH: Combining history and technology, students recorded immersive 360° videos at the historical Fortezza of Rethymno and participated in virtual reality tours of the school in second languages, working in collaborative cross-national groups.

5. COMMUNITY DISSEMINATION: Results were shared widely through a local school expo (May 20, 2026) featuring hands-on stations of VR/AR and 3D printing for students and parents, culminating in a dedicated parent briefing on June 19, 2026.

6. KEY OUTCOMES

- Enhanced Engagement: 100% of participating students reported that AR/VR made learning significantly more fun, interactive, and less 'boring'.
- Inclusive Success: Assistive text-to-speech tools successfully bypassed reading limitations for dyslexic learners, showing a direct rise in self-confidence.
- Civic Skills: Working in diverse teams across different cultures promoted deep mutual empathy, teamwork, and strong intercultural bonds.
- Open Educational Resources: Co-created lesson plans were successfully published as open-access resources to ensure long-term, replicable impact.

7. VOICES OF THE COMMUNITY

"I loved using VR in class! It is an amazing and original idea for the future of teaching and learning."
— Participated Student (9th Grade)

"Thank you so very much for offering these unique, innovative, and unforgettable experiences to our children! They have opened their horizons."
— Parent of a Participant Student

"The non-measurable values of respect, equality, and mutual support are the most important and lasting outcomes of this collaborative journey."
— Project Educator

"Our school transformed its borders, demonstrating that technology is not a mere gadget, but a democratic bridge to knowledge and empathy."
— School Principal

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