AR and 3d-models using Fectar – v1:

MaFEA – Making Future Education Accessible PR3 - EDUCATIONAL LEARNING PATHS

Technology tools:	<u>Fectar studio</u> , Fectar app
Tool version:	4.0
Optional technologies:	Insta360 & software, SketchFab, Scaniverse/Polyscan app on smartphone Meta Quest 2/ Pico Neo 4/ Microsoft HoloLens
Date:	12-5-23
College:	ROC MBO
Author (optional):	
Topics of the lesson(s):	Augmented reality, 3D-models















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Lesson title/subject: Augmented reality, 3D-models

Requirements: What do you need? (Think hardware, skills, knowledge.)

- 1. Fectar Studio in a browser (Easiest on large screen)
- 2. Mobile phone
- 3. Fectar app on the phone
- 4. Knowledge how to use Fectar, see the YouTube playlist or tutorial on mafea.eu
- 5. Some practice with demoing the smart phone app

Intention: What do you wish for or hope to happen? (Intentions are often not measurable or tangible, but help you in developing the design process.)

- 1. That our students are familiar with Augmented Reality
- 2. That our students take an active role in the lesson's activity
- 3. That our students learn to use and manipulate 3D models for AR
- 4. That the students respond to the lesson's activity with curiosity

Desired Outcomes: One or more measurable and tangible goals the teacher aims for with this lesson/these lessons.

- 1. That the students are engaged enough that they want to take part in another activity
- 2. That the students know how to use 3D models and how they are used
- 3. That the students know how to work with AR and related software

Agenda: HOW are you going to reach the goals? Description of the lesson plan / educational activities / working methods.

- 1. Students come to the classroom. The teachers ask the students if they have worked with augmented reality before.
- 2. The teachers ask if anyone knows anything about using 3D models.
- 3. The teachers explain that the students are going to take part in an AR workshop. And learn to use 3D models inside of an AR workspace.
- 4. The students are asked to make a fectar account and log in. Once the whole group has logged in it's possible to advance to the next step/Students log into the excisting Fectar account.
- 5. The students are asked to all create a new private space to work in.
- 6. The teacher explains that the 3D fectar space they will be creating needs to be in a theme (Childhood room, Product demonstration, Future house, Metaverse room)
- 7. The teacher explains how the students can get 3D models (besides the example content) for fectar using SketchFab. See 'using 3D models' document
- 8. The teacher instructs the students start making their space.
- 9. Once the set time is over, the teacher has all the students demonstrate their space.

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Roles: Who facilitates what? Who participates? What do we expect of the students?

- 1. Teacher A -> instructs, leads the lesson
- 2. (Teacher B -> instructs, leads the lesson)
- 3. Students -> take part in the class activity, behave carefully with the equipment

Rules: Rules or principles are about how you want to learn and work together.

- 1. Have an open atmosphere -> everybody can share his/her experience with the class.
- 2. Have respect for everybody that is taking part in the activity. Be quiet and let everyone experience the process.
- 3. Be careful with the tools.

Time: Describe the time path: What time do we start / finish / break? When is the time for reflection? What happens between contact times?

- 1. (3min) Students come to the classroom. The teachers ask the students if they have worked with augmented reality before.
- 2. (3min) The teachers ask if anyone knows anything about using 3D models.
- 3. (3min) The teachers explain that the students are going to take part in a AR workshop. And learn to use 3D models inside of a AR workspace.
- 4. (10min) The students are asked to make a fectar account and log in. Once the whole group has logged in it's possible to advance to the next step.
- 5. (3min) The students are asked to all create a new private space to work in.
- 6. (3min) The teacher explains that the 3D fectar space they will be creating needs to be in a theme (Childhood room, Product demonstration, Future house, Metaverse room)
- 7. (15min) The teacher explains how the students can get 3D models (besides the example content) for fectar using SketchFab. See 3D model document on mafea eu
- 8. (30min) The teacher instructs the students start making their space.
- 9. (25min) Once the set time is over, the teacher has all the students demonstrate their space.
 - → Approximately +- 100 min.