STEAME
TEACHER ACADEMY

**Guidelines for facilitating the learning of STEAME**
Reference Number: 101102619

# Module and Workshop Learning Plan

**Module Number and Area/Topic:**
**MODULE 1: STEAME LEARNING SPACE**
**Learning environment/infrastructures, including ethics**
**Module leader:** CYMS

## 1. Introduction and broad description of the context and goal of the area/topic addressed with reference to the STEAME Teacher Facilitators Competence Framework for student and serving teachers

In envisioning future schools and universities, we express a desire for a dynamic and tech-savvy learning environment. We want to see more digitalization, incorporating advanced technology into education. Augmented reality tools would enhance learning experiences, while outdoor study areas in nature would provide a refreshing change. Additionally, integrating virtual reality, AI and other innovative tools for immersive education and creating a changeable environment with adaptable spaces are key aspirations. Encouraging creativity, effective communication, and practical skills development are also priorities. Finally, ensuring inclusivity by providing access for all is crucial.

When envisioning future schools and universities, ethical discussions arise. These include ensuring equity and access, safeguarding privacy and data security, promoting inclusivity and diversity, making ethical use of technology, considering environmental sustainability, and maintaining teacher-student relationships. Additionally, addressing curriculum content, fair assessment and grading, prioritizing social and emotional learning, and ensuring financial transparency are vital considerations.

## 2. Learning objectives and learning outcomes with reference to the defined list of learning outcomes in the Competence framework
Upon completing this module, trainees will be familiar with the following issues:
- **Rational and need for change in learning methods and learning spaces**
    - Adapting to the needs of teachers and students
    - Scenarios of future practices for learning
    - **Ethical Consideration:** Deviation from traditional learning and standards – Paradigm Change
- **Digitalization and Technology Integration**:
    - Future schools should prioritize robust Wi-Fi networks, smart classrooms, and access to digital resources.
    - **Ethical Consideration**: Balancing technology use with privacy concerns. Protecting student data, ensuring equitable access to technology, and promoting responsible digital citizenship are essential.
- **Augmented and Virtual Reality**:

- o AR overlays digital content onto the real world, while VR immerses students in virtual environments.
  - o **Ethical Consideration**: Ensuring AR/VR content is age-appropriate, unbiased, and aligned with educational goals. Avoiding excessive screen time and promoting critical thinking about virtual experiences.
- o **Outdoor Learning Spaces**:
  - o Incorporating **outdoor study areas** fosters creativity, reduces stress, and connects students with nature. These spaces can include gardens, seating areas, and natural landscapes.
  - o **Ethical Consideration**: Designing inclusive outdoor spaces accessible to all students. Considering safety, environmental impact, and cultural sensitivity.
- o **Changeable Environments**:
  - o Flexible classroom layouts, movable furniture, and adaptable spaces accommodate diverse learning needs. Students can collaborate, experiment, and personalize their learning environment.
  - o **Ethical Consideration**: Promoting student agency and voice in shaping their environment. Avoiding rigid structures that hinder creativity and individuality.
- o **Creativity and Innovation Hubs**:
  - o Dedicated spaces for **creativity**, innovation, and project-based learning. These hubs encourage experimentation, problem-solving, and interdisciplinary collaboration.
  - o **Ethical Consideration**: Fostering an inclusive culture where all students feel empowered to explore and express their creativity. Avoiding elitism or favoritism within these hubs.
- o **Inclusivity and Accessibility**:
  - o Future schools must prioritize **inclusivity**. This includes physical accessibility (ramps, elevators), sensory-friendly spaces, and accommodations for diverse learning styles.
  - o **Ethical Consideration**: Advocating for students with disabilities, addressing biases, and promoting cultural competence. Celebrating diversity and avoiding discrimination.

## 3. Competences that are developed

- o **Creativity**: Encouraging innovative thinking and problem-solving. Trainees understand that they should inspire students to explore new ideas and approaches.
- o **Critical Thinking and Problem Solving**: Equipping students with analytical skills to evaluate information, make informed decisions, and address complex challenges.
- o **Communication**: Teaching effective communication—both verbal and written. This includes active listening, articulation, and respectful dialogue.
- o **Collaboration**: Fostering teamwork and interpersonal skills. Trainees understand that they should guide students in collaborative projects, emphasizing empathy and cooperation.
- o **Innovation**: Staying abreast of educational trends and integrating new technologies. Teachers should model adaptability and a growth mindset.
- o **Adaptability**: Preparing students for a rapidly changing world. Teachers must be flexible, open to new methods, and resilient.
- o **Digital Literacy**: Navigating digital tools, online resources, and responsible internet use. Teachers play a crucial role in developing students' digital competence.
- o **Ethical Awareness**: Trainees gain a deeper understanding of ethical dilemmas and principles within educational contexts. They learn to recognize and navigate complex ethical situations.

**4. Content and Resources (providing information on the various constituents/ dimensions of the topic under consideration), including presenter's notes for guidelines of the workshops organisation**

*Annex 1 Material in PPP*
*Are Universities in danger?*
*Are Schools in danger?*
*Annex 2 Material in PPP*
*What are the expected infrastructure components in a future school?*
*Pictures of a future school and its content*
*Videos of related facilities(gym, playing fields, laboratories, learning stations, learning rooms, working spaces, learning in motion, colouring the school, special rooms (VR rooms etc), communication theatres, BYOD type approaches,*

**5. Methodology and approaches for the module training presentation and guidelines for workshops organisation**

During workshop participant teachers should answer to questions shared to them through a mentimeter. Four basic questions are:
1. What do they like to have/see in a future school or university that they do not have/see today?
2. How do they imagine the learning methods in 20 years from today?
3. Play videos of current schools and follow with discussion
4. Ask teachers to work in groups and design a future learning space for their students in an A3 size piece of paper.

**6. Instruments/Tools/Supporting Materials/Resources to be used**

**-Annex 1 : STEAME-ACADEMY – Module 1- Are School and Universities in danger?**

**-Annex 2:  PPP presentations on future schools and universities**

**- Links to videos of STEAME schools (https://steame.eu/13-photos-videos-of-steame-schools/ )**

**- Annex 2: STEAME-ACADEMY – Module 1- Example of future School**

**- Annex 2.1 : VIDEO - International Sign Language short video**

**- Annex 2.2 : VIDEO - ASB Future Mutlisports spaces**

**- Annex 2.3 : VIDEO - STEAME Pitch Video**

**- Annex 3.1 : Ethical Issues**

**- Annex 3.2 : Ethics module of Facilitate-AI**

| PART 1 | Introductory Activities (creation of interest, reference to real-world issues, relation to background and experiences, etc.) |
|---|---|
| Learning Objectives | o **Rational and need for change in learning methods and learning spaces** |
| Learning Outcomes | **Teacher understand the need to change learning approaches and to adapt to technology changes** |
| Competences | **Develop critical thinking on change and adaptation to learning needs** |
| Content, Resources and Tools | **ANNEX 1** |
| Activities | **Follow steps in ANNEX 1** |
| Estimated Time | **20 min** |

*(add more Activity sections as needed)*

| PART 2 | Development Activities |
|---|---|
| Learning Objectives | o **Digitalization and Technology Integration**:<br>o **Augmented and Virtual Reality**:<br>o **Outdoor Learning Spaces**:<br>o **Changeable Environments**:<br>o **Creativity and Innovation Hubs**:<br>o **Inclusivity and Accessibility**: |
| Learning Outcomes | **Teacher understand the practicalities in new school spaces to facilitate PBL activities and to adapt to the student needs.** |
| Competences | **Develop creativity and ability to facilitate the adaptation of learning spaces** |
| Content, Resources and Tools | **ANNEX 2** |
| Activities | **Follow steps in ANNEX 2** |
| Estimated Time | **20 min** |

*(add more Activity sections as needed)*

| PART 3 | Practical Activities (hands-on activity) in the case of a workshop mode |
|---|---|
| Learning Objectives | **Apply knowledge and new thinking in designing adaptive learning spaces** |

| Learning Outcomes | Ability to design new learning space, be creative and be adaptive<br>Ability to communicate creative thinking |
|---|---|
| Competences | Develop creativity, use imagination, understanding the needs of youth<br>Develop communication skills |
| Content, Resources and Tools | Ask teachers to work in groups and design a future learning space for their students in an A3 size piece of paper. |
| Activities | When the teacher groups complete their designs, we ask them to post them on some wall. We then give marking stars to all in different colours per group and we ask them to assess each other's creative work by giving 1-5 stars, but not assessing their design |
| Estimated Time | 30 min |

*(add more Activity sections as needed)*

| PART 4 | Evaluation of Learning Outcomes |
|---|---|
| Learning Objectives | Ethical Considerations |
| Learning Outcomes | Assessing Ethical Issues |
| Competences | Understand Ethical Issues |
| Content, Resources and Tools | Related ANNEXES<br>ANNEX 3 |
| Activities | Part 1: ethical statements written by each teacher on small pieces of sticker papers and post them on a shared space<br>Part 2: Round-Table to discuss the statements posted |
| Estimated Time | 20 min |

*(add more Activity sections as needed)*

**7. Reflection and Closure activity**

**Through the Round Table of Part 4.**