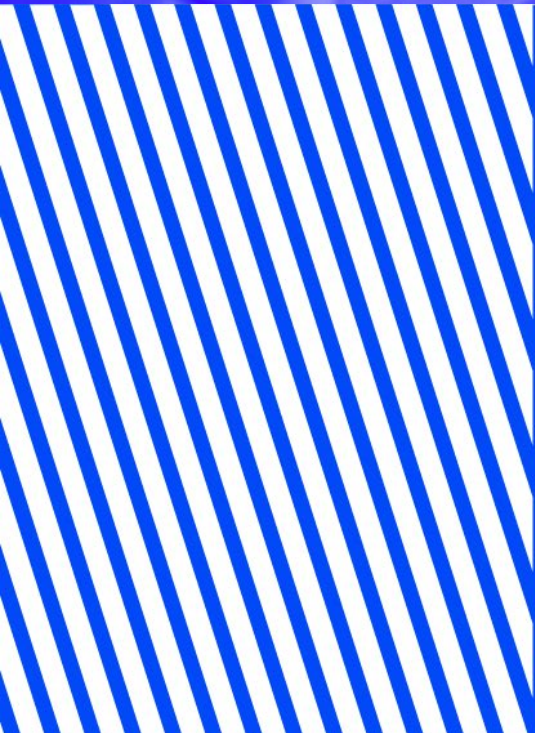
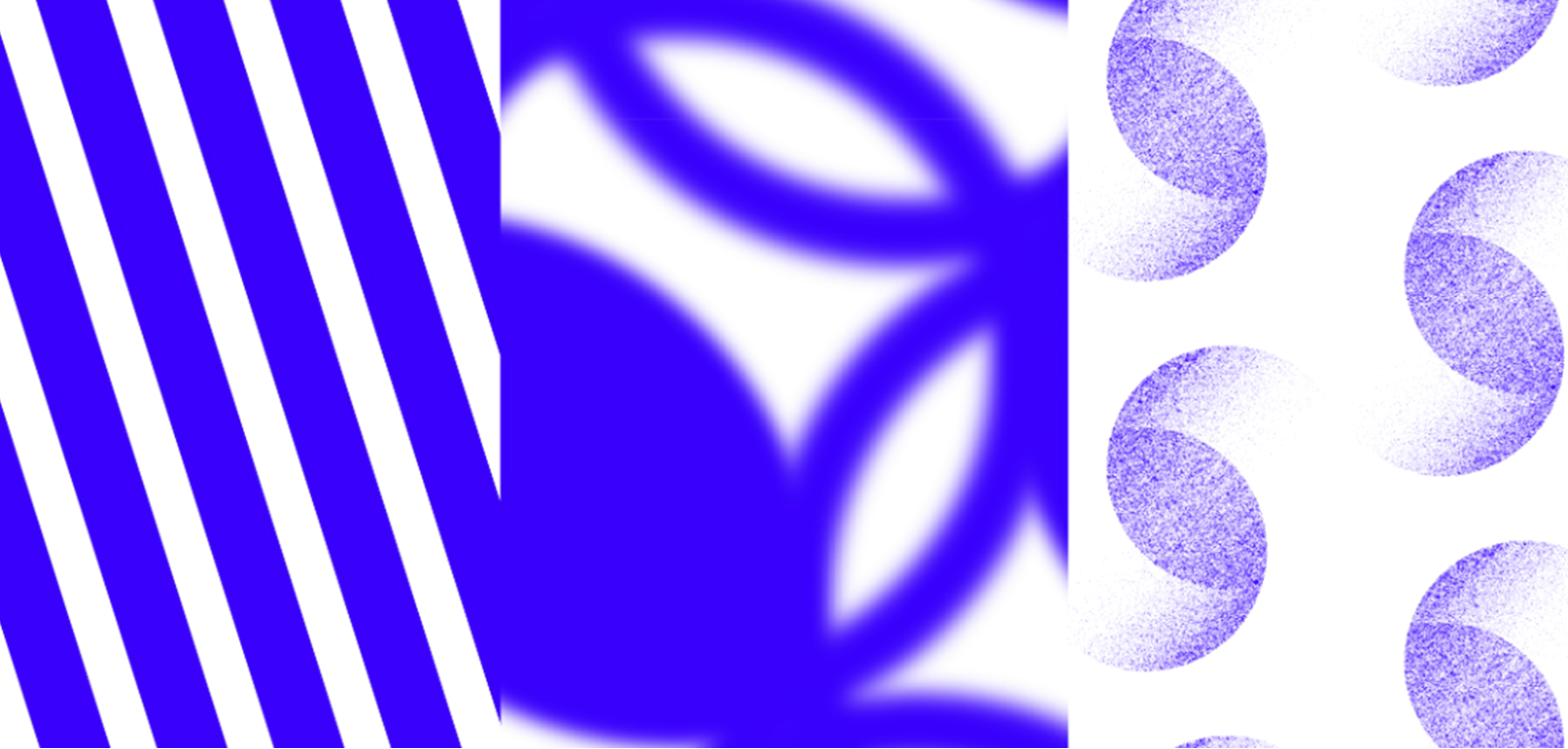


# Guidelines for Trainers

INNO-TEC-LAB Online Train-The-Trainers





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## Aims and units

The INNO-TEC-LAB online Train-the-Trainers main goal is to strengthen the capacity of teachers, and in turn that of their relevant institutions, to respond to and anticipate the changing in educational and working environment as specifically related to the technical careers, in accordance with sustainability and context-specific environments.

You will do this through 3 training units (plus a project work) where you:

- reflect on how to coach and support students in their future professional steps taking inspiration from current societal trends
- explore the relevance of different 21st century skills within teaching such as critical thinking, inclusive communication, cross-cultural collaboration and problem-solving,
- experiment with state-of-the-art digital tools and platforms that shape a new way of teaching in these fast changing times
- put all new acquired learnings to the test in a project where you redesign (part of) your own teaching practice.

## How to start

The online Train-The-Trainers is implemented through a platform (<https://innoteclab.ied.edu/>) where coaches lead live lessons, mentoring sessions, collect resources and references and interact with participants via a forum.

## Selection of the participants:

Through a call to action, participants will be selected among teachers and professors, taking into account:

- Gender equality
- English proficiency
- Teach laboratory classes
- Motivation (in written)
- How they would implement innovation in their own teaching
- IT competences



# Unit 0 – Introduction of online TTT

**Keywords: etiquette, calendar, organizational information**

## Learning outcomes:

The aim of this unit is to give participants all the information they need to follow the training

## Content:

- A video presentation (it may be an online meeting, recorded)English proficiency
- The calendar
- The links to the units / forum
- The online etiquette



# Unit 1 – Circular coaching

**Keywords: circular concept, coaching, trends, future**

## Learning outcomes:

The aim of this unit is to give teachers the opportunity to acquire knowledge, skills, competences to implement teaching in an innovative way to enhance interdisciplinary competences by integrating specific disciplines in order to enrich the baggage of competences possessed by students, facilitating their entry into the world of work and their personal growth as active and responsible citizens. A time to reflect on the role and how it can be implemented or changed. Teaching is not only imparting knowledge, but creating a context and finding different ways to get in touch with young talents from different cultures. Igniting the minds of new generations with positive and ever new energy. All this is always done through alchemy and experimentation with new methods. We will try to answer some simple questions that can change the point of view and interaction between the two worlds, often seen as antagonistic. What is the meaning of coaching? What

does it mean to have a method? Who is a student today? How often do the students coach each other?

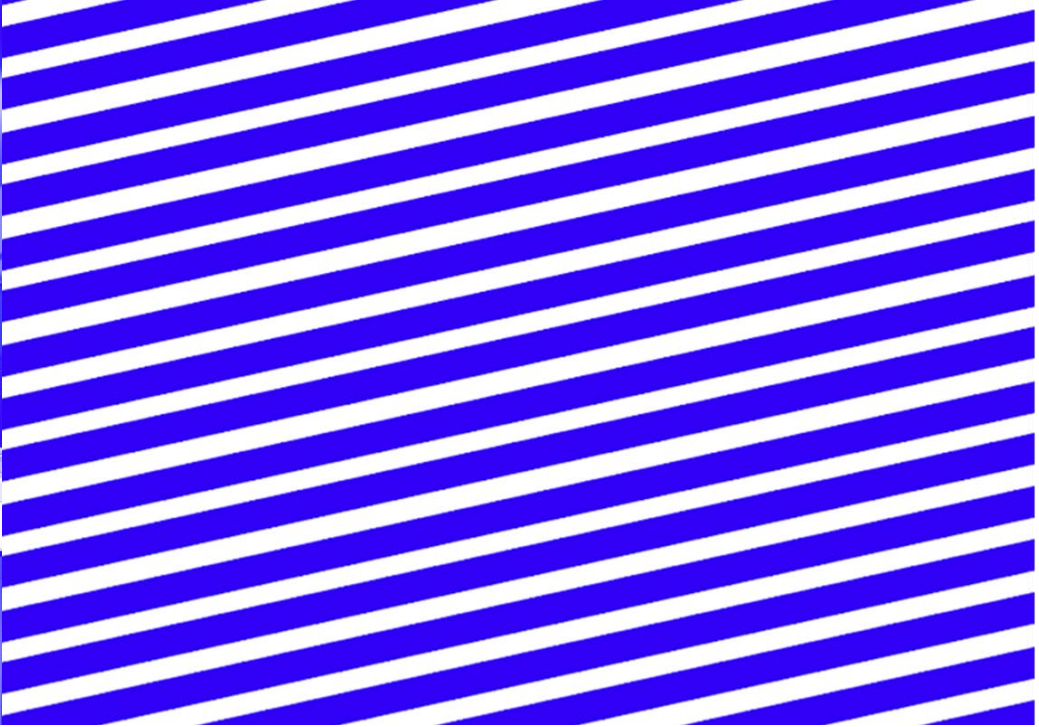
## Questions to consider:

- The operational method: the laboratory
- The investigate method: experimental research
- The participatory method: action-research in the classroom
- The individualised method: mastery learning
- Active techniques: the general framework
- Virtual mazes to learn how to choose
- The accident to learn how to decide

## Suggested exercise:

Participants elaborate the following questions:

- Do we have a teaching method?
- Are we willing to change from teachers to coaches have we changed our method from in person to online?
- Is my method still valid?
- How can we integrate experience and technology?
- How can we use different spaces in online and in person?
- What will the students of the future be like?



# Unit 2 – New technologies: opportunities and challenges within education

**Keywords: digital twin, blended education**

## Learning outcomes:

COVID has accelerated the adoption of digital and online education. This has opened a Pandora's box of opportunities, challenges, and dilemmas when considering the future of practical, "hands-on," applied education. Moving into a post-COVID world will mean a new blend of digital and in real life (IRL) interactions. Digital twins (so-called digital representations of real life objects, people, processes that also interact with the real world) can play a role in bridging the physical and digital worlds. In this module, we will discuss and experience several levels on which digital twins could play a role in practical



education: 1) for students/educators, 2) on campus, and 3) within the curriculum. We will also explore the potential of today's technologies when speculating about the future of blended education.

- Questions to consider that your students explore in this session:
- What added value can digital twins bring to practical education?
- How can digital twins facilitate what's missing from many digital interactions such as sense of place, embodiment, or connection?
- How can digital experiences be elevated to create novel but meaningful experiences?
- What parts of experience can be and should be IRL versus virtual?
- What can we learn from experimenting with current technologies including AR/VR solutions?

## **Suggested exercises:**

- Take participants through different online tools and platforms that could be used for online or blended education (like Butter, Gather, Miro, Mozillahubs or Miro)
- Discuss advantages and disadvantages of each tool: what type of education is this useful for?
- Let participants redesign a part of their own teaching using one of the tools - translating an offline experience into an online one. Test and gather feedback with peers



# Unit 3 – Innovation and 21<sup>st</sup> century skills

**Keywords:** 21th Century skills; inclusiveness

## Learning outcomes:

The aim of this unit is participants to be able to:

### Perspective-taking

- Demonstrate openness to new perspectives and diverse others
- Evaluate diverse perspectives, and navigate the ambiguity and complexity that comes with multiple perspectives
- Listen while withholding judgement about the new or unfamiliar

## Communication

- Seek points of connection and interact substantively with those who are different from oneself
- Demonstrate communication skills that enable intercultural and inclusive communication, including effective listening skills
- Interact respectfully and appropriately in a variety of cultural and social contexts

## Collaboration

- Demonstrate professionalism by working inclusively and co-creating an environment where each perspective is considered for the cooperative purpose of making progress toward common goals

## Cultural knowledge and self-awareness

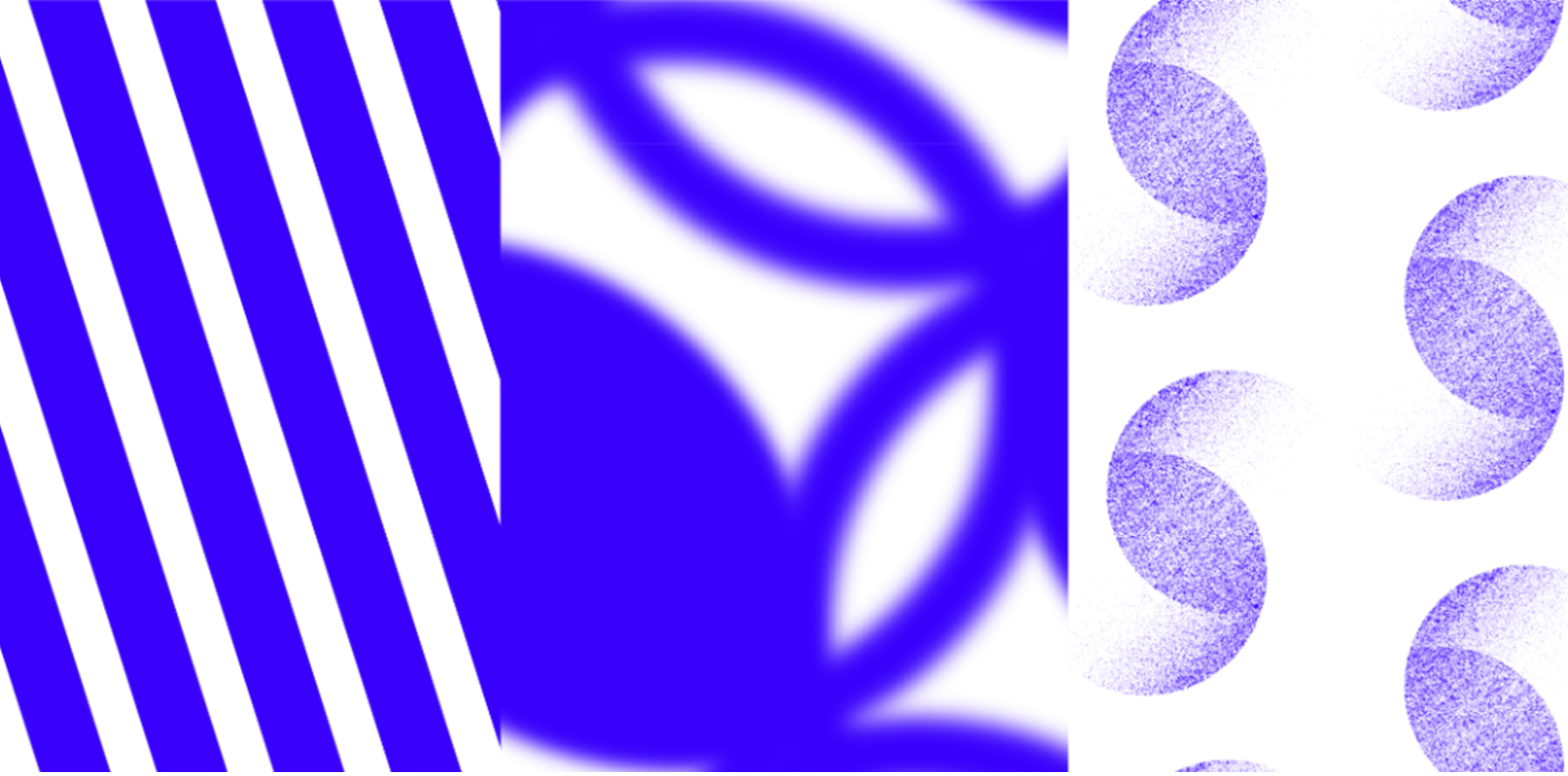
- Recognize and critically reflect upon one's own cultural and social biases
- Interrogate structures of power and institutions from the standpoint of cultural and social inheritance

## Questions to consider that your students explore in this session:

- How to adopt an inclusive approach while thinking, communicating, working, collaborating with others, leading
- What disability etiquette has to do with the 21st skills and competences?
- Why is important to use people-first language?
- How to check the accessibility of your website.

## Suggested exercises

- Which digital tools do you use in order to verify the accessibility of your teaching methods?
- Use the 48 characters of a tweet to explain your teaching approach.
- Use <https://hemingwayapp.com/> and try to express your course objectives in Grade 8.
- Verify the accessibility of your website by generating a Lighthouse report.



# Unit 4 - Project Work

## Learning outcomes

The Project Work is created as a final output of the course, with the goal for trainers to bring all their learnings of previous units together and reflect on who they are as a person and as a professional, as well as to show what's the best way to share their story, achievements and goals with the world.

A training session plan provides a useful format for thinking about the activities and resources you'll use to guide a group toward a learning objective.

To create an effective training session plan, take the following 6 steps:

- Step 1: Define your objectives.
- Step 2: Clarify key topics and related concepts.
- Step 3: Organize material.
- Step 4: Plan presentation techniques.
- Step 5: Include evaluation.
- Step 6: Focus on timing.

## Suggested assignment:

A project work index will be upload to the platform. Step by steps, unit after units, you will be more confident until you will be able to design your final training session (or course).

# Learning box

## Description

This is a shared reading list with some inspirational books, movies and articles.

Feel free to use this as an addition to any resources you might already use.

## Podcasts

- You can find 5 inspiring podcasts - talks with influential artists and professors - [here](#)

## Books & Articles

- Omar Adeeb Alshboul: The Influence of New Technologies Interior Design: The impact of new technologies in Design Process (2017)
- Alice Rawsthorn, Design as an Attitude, 2018
- Gorman, McQuaid, Van Mensvoort, Nature: Collaboration in Design, 2019

## Magazines

- Monocle
- Wallpaper
- A Taxonomy of Digital Twins  
[https://www.researchgate.net/publication/341235159\\_A\\_Taxonomy\\_of\\_Digital\\_Twins](https://www.researchgate.net/publication/341235159_A_Taxonomy_of_Digital_Twins)

## Movies

- Michel Gondry, Eternal Sunshine of the Spotless Mind, 2004
- Kim Ki-duk, Three Iron (Empty house), 2004
- Spike Jonze, Her, 2013
- Ruben Östlund, The Square, 2017
- Bong Joon-ho, Parasite, 2019
- Shalini Kantayya, Coded Bias, 2020

## Videos

- Sun Yuan and Peng Yu: Can't Help Myself, watch [here](#)
- Biennale Arte2019 LITHUANIA Sun & Sea (Marina), watch [here](#)
- What Will Schools Look Like in the Future? - watch [here](#)
- Inspirational video here (tbc by VSI)
- Coded Bias/Documentary <https://www.imdb.com/title/tt11394170/>
- What is Digital Twin? How does it work?  
<https://www.youtube.com/watch?v=iVS-AuSjpOO>
- What Will Schools Look Like in the Future?  
<https://www.youtube.com/watch?v=JZlgYiXzu58>
- [Simon Sinek's](#) Golden Circle mode

## Websites

- Discuss platform: <https://www.discuss-community.eu>
- UN Volunteers: [www.onlinevolunteering.org/en](http://www.onlinevolunteering.org/en)
- Hemingway app: <https://hemingwayapp.com>