NOVIGADO
ACTIVE LEARNING AND INNOVATIVE TEACHING IN FLEXIBLE LEARNING SPACES

Capacity Building Programme
Training Manual

Novigado project consortium

Table of Contents

Introduction

Novigado is a project funded by the European Commission's Erasmus+ Programme, with the overall objective of supporting schools and related stakeholders in the transition from a conventional, teacher-centred classroom to teaching practices that promote Active Learning with the support of flexible, innovative learning environments and the use of relevant ICT.

The project partners designed a Capacity Building Programme (CBP), that aims to implement and support sustainable change processes in schools. The programme helps to mainstream Active Learning and pedagogical innovation at the whole-school level, going beyond individuals or a small group of front runners.

To put the programme into practice, the project partners organised a CBP pilot in four countries – France, Poland, Portugal and Turkey – between June and December 2021. Each of the four national teams involved five to six schools. The pilot started off with a training workshop for teacher teams of the participating schools on Active Learning pedagogy, which was followed by creation of innovative scenarios and their implementation with students.

The Novigado project also developed a tool to create Active Learning scenarios. The tool encourages co-creation and peer review among teachers, which is important in order to have successful and sustainable changes. Professional exchange among colleagues in a school is crucial to upscale innovation.

This training manual is for anyone who wants to replicate a similar training programme in a school, a training institute or any other face-to-face course setting. It describes the main steps and roles to deliver the training to the teachers or trainers, but also the follow-up phase where teachers will work with students, bringing the designed scenarios into practice.

The manual is accompanied by a comprehensive toolset of documents and instruments to carry out and monitor the programme. It includes more than 30 attachments which are signposted within each chapter under "Toolset Section". The manual is the trunk of the training programme, and the toolsets are the leaves and fruit that bring the "tree" to life. We hope that you enjoy reading and find it useful!

The training manual and most of the toolset materials are available in English, French, Polish, Portuguese and Turkish. They are published under Creative Commons, and adaptations (including further translations) are possible.

Toolset materials are available here: https://bit.ly/novigado-training-toolsets

Novigado in a nutshell	
Objective	To support schools and related stakeholders in the transition from a conventional, teacher-centred classroom to teaching practices that promote Active Learning with the support of innovative learning environments and use of relevant ICT.
Funding	Erasmus+ Programme Key Action 2 – Strategic Partnership (School Education – Cooperation for innovation and the exchange of good practices)
Duration	30 months from 01/12/2019 until 31/05/2022
Website	http://fcl.eun.org/novigado

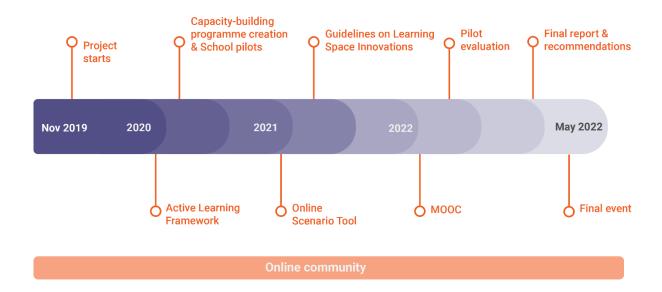**Partners:**

- Fundacja Rozwoju Społeczeństwa Wiedzy Think!, Poland (coordinator)
- European Schoolnet (EUN Partnership AISBL), Belgium
- Agrupamento de Escolas Fernando Casimiro Pereira da Silva, Portugal
- Directorate General of Innovation and Educational Technologies, Ministry of National Education, Turkey
- Réseau CANOPE, France
- Lycée Pilote Innovant International, France

Project timeline

1. Setting up the CBP Training

1.1 Selection of participants and the kick-off phase

The format of the Capacity Building Programme was defined by the Novigado project's proposal and the decisions of the project partners. In the case of the pilot, Covid-19 affected the delivery of the training sessions (timing and format) and the briefings of the participants.

The pilot started with the selection of schools in the four partner countries. Each national Novigado team selected five to six secondary schools based on their local context and needs. In Turkey, for instance, the national Novigado team selected three schools which already had Active Learning practices and three which wanted to get started with it.

The pilot was launched in each country with an online kick-off meeting for the participating school teams, in June/July 2021, about two months before the actual training workshop and the classroom phase. In the meeting the main objectives of the CBP, the timeline and the commitments were shared and discussed. This allowed the schools to get prepared for the programme by involving and informing relevant colleagues and school management, and selecting class groups.

The main objectives of the kick-off meeting for the participants were to:

- understand the main aims of the Novigado project and the Capacity Building Programme;
- get to know the national Novigado team and the participants of other pilot schools;
- understand the commitments of participation and the main timeline;
- understand how they communicate with the national Novigado team;
- get the opportunity to ask questions about the project.

The participants also received a pre-task for the training workshop. They were asked to take pictures of learning spaces in their schools. These would be used at one of the actual training sessions. An activity like this makes it clear from the start that the training programme aims at bringing concrete changes and innovative practices to the participants' schools.

1.2 Agreements and Monitoring

At the kick-off meeting, the list of commitments was clarified. A formal letter/contract was shared that stipulated the agreements between the schools and the national Novigado team. The contract was to be signed by the school head teacher to confirm their commitment. The participants also filled in a form with general information about their school.

The programme aims at upscaling innovative practices with particular focus on Active Learning; monitoring of the activities and the feedback provided by the participants at different stages of the project therefore have an essential role. It is consequently important to explain at the beginning the evaluation tools to be used by both teachers and students. For the purpose of the pilot the initial questionnaire was filled in during the kick-off meeting, and the same questionnaire was filled in again at the end of the programme allowing evaluation of the progress as an outcome of the pilot. This and other collected data were analysed and the evaluation findings were shared in the Novigado CBP evaluation report published in spring 2022 describing the process at school level.

This training manual includes re-usable instruments, like feedback forms and peer review rubrics, to capture the achievements of the CBP.

1.3 Toolset Section

[01] – Slide deck Kick-off meeting
[02] – Description slide deck Kick-off meeting
[03] – Sample letter/contract - agreement
[04] – School information form
[05] – Teacher pre- and post-questionnaire
[06] – Student pre- and post-questionnaire

→ **https://bit.ly/novigado-training-toolsets**

2. Training Programme

The main part of the actual Novigado school pilot commenced with a training workshop for teachers who later rolled out the activities with their students. For this purpose, the programme was shaped into a two-day workshop organised by each Novigado national team.

The training programme consists of different modules described in this chapter, which can be picked and mixed according to interest and needs. The Toolset includes slide decks and instructions to deliver the modules, and additional materials in some cases. All four national teams made adaptations and delivered the training in their local language.

It is important to say that the workshop should, as far as possible, be delivered in a mode that corresponds to the ideas of Active Learning. Participants must be engaged. *Teach what you preach* should be the motto of the workshop.

Further information on the ideas of Active Learning can be found in the *Active Learning Reference Framework for Innovative Teaching in Flexible Learning Spaces* (2020), a document created by the Novigado project. **Download the document here**.

Training Module 1: Workshop Start & Ice Breaking

Objectives

The participants receive all information needed and feel engaged to take part and finish the training programme successfully, together with peers.

Content

1. Ice-breaking activity(-ies) and introduction of participants
2. Overview of workshop programme
3. Challenges to mainstream changes at school

Sample Activities in Toolset Section

[07] – Training Module 1 (Slides) – Workshop start & ice breaking
[08] – Training Module 1 (Description Activities) – Workshop start & ice breaking

➜ **https://bit.ly/novigado-training-toolsets**

Training Module 2: Introduction to Active Learning

Objectives

The participants learn about the basic pedagogical concepts of Active Learning.

Content

1. Definition of Active Learning
2. Role of students and teachers in Active Learning context
3. Learning Spaces supporting Active Learning
4. The four Cs of education: Communication, Collaboration, Critical thinking, Creativity
5. The concept of a Learning Scenario

Sample Activities in Toolset Section

[09] – Training Module 2 (Slides) – Introduction to Active Learning
[10] – Training Module 2 (Description Activities) – Introduction to Active Learning

→ **https://bit.ly/novigado-training-toolsets**

Training Module 3: Learning Spaces

Objectives

The participants learn how a traditional static classroom with fixed positions can become a dynamic learning environment by applying pedagogical formats that allow or oblige movements. Furthermore, the participants learn about the Learning Zone concept and reflect on the whole school as a learning space. The participants also learn about the different spatial parameters that characterise learning activities.

Content

1. The main parameters to organise learning at school, i.e. content, people, time and space.
2. Input and reflection from participants with pictures taken from different learning spaces at their own school.
3. A static classroom with fixed positions vs. a dynamic classroom with orchestrated movements according to a pedagogical format
4. Types of dynamic formats
5. Rationale behind the environment with Learning Zones.
6. Learning Zones of Future Classroom Lab of European Schoolnet
7. Breakout spaces and the whole school as a learning space
8. Overview of spatial parameters

Sample Activities in Toolset Section

[11] – Training Module 3 (Slides) – Learning Spaces
[12] – Training Module 3 (Description Activities) – Learning Spaces
[13] – Training Module 3 (Additional Document) – Learning Spaces – Template Fishbowl

→ **https://bit.ly/novigado-training-toolsets**

Training Module 4: Exchange and Discuss

Objectives

The participants learn about the variety of exchange and discuss strategies. They discuss challenges when implementing Active Learning strategies in flexible spaces, as well as the connections between the learning spaces and Active Learning scenarios.

Content

1. Try out and/or learn about formats such as Carousel Brainstorm, Jig Saw, Stirring the Mix, Concentric Circles, Socratic Seminar, Thoughts, Questions and Epiphanies, Hot Seat, World Café, Thinking Routines, Chalk Talk, Asynchronous Voice, Backchannel, Talk Moves
2. Apply reflection formats such as Hand it in – Pass it out, Think-Puzzle-Explore

Sample Activities and additional documents in Toolset Section

[14] – Training Module 4 (Slides) – Exchange & Discuss
[15] – Training Module 4 (Description Activities) – Exchange & Discuss

→ **https://bit.ly/novigado-training-toolsets**

Training Module 5: Scenario Tool

Objectives

The participants get an introduction to the online scenario tool. They understand the different components that are part of the tool. The free tool is available at: https://fcl.eun.org/scenario-tool

Content

1. Six activity categories
2. Spatial parameters
3. Demo of the scenario tool

Sample Activities in Toolset Section

[16] – Training Module 5 (Slides) – Scenario Tool
[17] – Training Module 5 (Description Activities) – Scenario Tool

→ **https://bit.ly/novigado-training-toolsets**

Co-funded by the
Erasmus+ Programme
of the European Union

NOVIGADO

Training Module 6: Investigate-Create-Present

Objectives

The participants learn about the rationale behind Project-Based Learning and Inquiry-Based Learning (PBL). They learn about the affordances and challenges, as well as about the different project outcomes and ways of presenting the project. Moreover, the participants learn about the different stages of a Passion Project (Genius Hour) process.

Content

1. The rationale behind using PBL
2. Advantages and Challenges related to PBL
3. What are Passion Projects (Genius Hour Projects)
4. Implementing the different stages of Passion Project classes
5. Challenges and solutions for PBL

Sample Activities and Additional Documents in Toolset Section

[18] – Training Module 6 (Slides) – Investigate-Create-Present
[19] – Training Module 6 (Description Activities) – Investigate-Create-Present
[20] – Training Module 6 (Additional Document) – Investigate-Create-Present – 8 Ps
[21] – Training Module 6 (Additional Document) – Investigate-Create-Present – Exit Tickets

➔ **https://bit.ly/novigado-training-toolsets**

Recommended Materials

Video: Genius Hour TED Talk / Reading: Implementing Genius Hour

---

Training Module 7: Experience of a Scenario

Objectives

The participants take part in an Active Learning scenario "like students would". They create an Active Learning scenario to be implemented in class and reflect on different aspects.

Content

1. Creation of teams
2. Description of task
3. Phases for the creation of the scenario: Dream – Explore – Map – Make – Ask/Re-Make – Show
4. Reflection on process and final product

Sample Activities in Toolset Section

[22] – Training Module 7 (Slides) – Experience of a Scenario
[23] – Training Module 7 (Description Activities) – Experience of a Scenario

Training Module 8: Assessment and Feedback

Objectives

The participants learn about the differences between assessment FOR, AS and OF learning. They learn about the value of formative assessment and its role in an Active Learning scenario.

Content

1. Types of assessment
2. Personalised assessment
3. Integrating assessment in an existing scenario

Sample Activities in Toolset Section

[24] − Training Module 8 (Slides) − Assessment and Feedback
[25] − Training Module 8 (Description Activities) − Assessment and Feedback

→ **https://bit.ly/novigado-training-toolsets**

Training Module 9: School Pilot Briefing

Objectives

At the end of the training workshop, the participants are informed about the follow-up programme. In the Novigado project the workshop initiated a pilot programme in 20 schools located in four countries (France, Poland, Portugal, Turkey). In each of these schools at least two scenarios were created. All scenarios were delivered in at least two class groups and assessed with peer review.

Content

1. Commitment: Scenario creation and delivery
2. Commitment: Evaluation and feedback
3. Optional: Communication about the project

Sample Activities in Toolset Section

[26] − Training Module 9 (Slides) − School Pilot Briefing

→ **https://bit.ly/novigado-training-toolsets**

3. Working with Students

The two-day training workshop served as a preparation for the core activity of the pilot programme, which is the activities taking place in the classroom.

This phase took place over a period of about three months and consisted of two parts. During each part the teacher teams developed a scenario in their school. The scenario was then delivered in at least two different class groups. During these deliveries, peer review took place by one or more colleagues from the school team.

In between the two parts the school teams attended an online follow-up meeting with the national Novigado team.

3.1 Scenario Development and Delivery

For the scenario development, the school teams used the Novigado Scenario Tool, created as part of the project. The tool guides the user to create classroom activities that support Active Learning pedagogy.

There is a slight difference between a scenario and a lesson plan: a scenario describes the main steps and pedagogical approaches, while a lesson plan provides all the specific elements to deliver a lesson. One scenario can be a basis for many, slightly different lesson plans, depending on the specific teaching context. The Novigado Scenario Tool can be used both for lesson plans and for more conceptual scenarios. During the pilot phase, the schools developed scenarios that resulted in at least two more detailed and specific lesson plans.

The Scenario Tool is inspired by the concept of the Future Classroom Lab Learning Zones. The tool guides teachers in building learning scenarios and practical lesson plans that support Active Learning pedagogy. To avoid stereotyped classroom activities, the tool makes the users reflect on the different types or categories of activities. When designing a new activity as part of the scenario, the users select one of these six categories:

- **Interact & Instruct**: teachers guide the learners through the different steps of the learning process.
- **Exchange & Discuss:** learners communicate and exchange with peers, either in small groups or in plenary.
- **Investigate & Research:** learners collect and reflect on data, find answers to driving questions, etc.
- **Create:** learners plan and prepare a product or a way to showcase their learning.
- **Present:** learners share what they have created with an audience.
- **Assessment & Feedback:** any activities concerning assessment *for*, *as* and *of* learning.

There is a certain overlap between the categories, but the advantage of this initial reflection is that it encourages users to bring variation into their classroom activities.

For each category the Scenario Tool provides ready-made activities the user can select and adapt. Moreover, there are suggestions about the tools and technologies to be used.

The Scenario Tool also promotes 21ˢᵗ-century skills, and specifically the so-called 4 Cs of Education which are considered to be the 'top skills': *Critical thinking*, *Communication*, *Collaboration* and *Creativity*. In the tool, users can easily show connection between their scenario and the 4 Cs through tagging functionality.

The scenario also allows selecting spatial elements to support the learning:

Role of teacher	• Teacher-led: guiding students through every step of the lesson. • A coach at the side: no direct instructions, students can use e.g. breakout rooms and ask for help when needed. • Independent mode: students work without teacher supervision.
Learners' positioning	• Individual • Small groups • Plenary (all together)
Space format	• Public, e.g. a classroom • Private, offering limited distraction • Virtual

Reflecting on all these parameters will help to step away from a one-size-fits all approach. The free scenario tool can be found at https://fcl.eun.org/scenario-tool.

3.2 Classroom Activities

During the pilot phase the school teams co-created scenarios making use of the Novigado Scenario Tool. The scenarios were delivered in at least two different class groups. To this end, the scenarios were adapted to the specific context.

One or more peer observers attended when the lesson was delivered, for which purpose the project had prepared a peer observation instrument (see Toolset Section). It is important that the peer review takes place in a safe environment for everybody involved. Peer observers don't actively take part in the teaching process and make themselves as inconspicuous as possible.

The peer observers use a template which will be shared with the teacher after the lesson and commented on during a feedback conversation. This feedback conversation takes place soon after the lesson, preferably within two days. For the second delivery of the scenario the roles of observer and teacher can be swapped, but that is not obligatory.

The observer uses a peer observation checklist. The final conclusions are based on the following questions:

1. *Which elements of the learning scenario were successful?*
2. *What challenges do you identify for students? What would you propose to help students tackle these challenges?*
3. *What challenges do you identify for the teacher? What would you propose to tackle these challenges?*
4. *How would you improve the learning scenario?*

Besides the peer interview, also both the students taking part and the teachers in charge of creating and delivering the scenario documented their experience by filling in a survey.

The teachers who actively took part in the project by creating a scenario and leading the classroom activities were invited to fill in a **Teacher's Journal**. In this document they report about the main pedagogical and organisational elements of the learning activity. It also makes the teacher reflect on the level of engagement of the students.

The national project teams also organised face-to-face interviews with teachers, either individually or in a focus group setting. The project created a scenario with sample questions to carry out these individual or focus group interviews.

Toolset Section

[27] – Peer observation checklist
[28] – Teacher's Journal
[29] – Interview guide (including sample questions)

→ **https://bit.ly/novigado-training-toolsets**

3.3 Intermediate Follow-Up

The pilot phase in the schools lasted about three months and consisted of two cycles including the co-creation of the two scenarios and the delivery with peer observation in at least two different class groups. In between these two cycles the schools met with their national team for a follow-up meeting.

The following topics were part of the agenda of the intermediate follow-up meeting:

- Presenting the created scenarios and delivery
- Challenges and lessons learnt
- Preparing second cycle
- Q&A

4. Conclusions and Outcomes

The training programme can be called successful if the school or institution builds sustainable habits of co-creating dynamic scenarios and implementing structural peer reviews. Schools and teachers can improve by building on lessons learnt from previous iterations.

Also, in the piloting of the Novigado projects, schools identified issues that must be borne in mind. The transition to an active model involves every aspect of school life, but mostly teachers' attitudes. Teachers must be willing to invest in new teaching practices if they still have a teacher-centred approach. Also, the physical classroom conditions play an important role. Active learning scenarios often imply classroom movements, and the classroom should not be too small. Flexible furniture is also preferable. Active learning activities result in more classroom noise and classroom management can sometimes be a challenge for some teachers.

Most important is that teachers are willing to collaborate with colleagues and understand the value of co-creation and peer review. The Novigado tool integrates the option of sharing scenarios. This culture of sharing with colleagues inside and outside the school is most valuable. In a later phase, it is foreseen to build a public repository of scenarios as part of the tool.

The Novigado project included an evaluation programme that aimed to understand how and why students and teachers engaged in Active Learning and use the flexible learning spaces during the pilot phase. Strongly related to the Capacity Building Programme, the evaluation tasks were coordinated by one of the partner organisations with the help of Novigado's national teams.

Results on the evaluation phase helped to get objective feedback on how the Novigado project contributed to schools' transition to an Active Learning model and the use of flexible learning spaces. Moreover, results helped to collect the teacher's and student's representations on Active Learning, identify best practices and recommendations on the implementation of Active Learning scenarios.

For data collection, several tools were implemented in the Novigado project: teachers and student pre and post-tests, Teacher's Journal and peer observation template. Additional qualitative data was collected through group interviews with teachers at the end of the pilot phase. Information was collected to show how Active Learning scenarios were implemented during the pilot phase (spaces, tools, competencies) and what were the major changes in teaching and learning methods.

It is advisable not to use more than two feedback tools when carrying out such a training programme. One of the tools appreciated by teachers involved in the Novigado pilot phase was the peer observation template. It was original, useful and felt by teachers as part of training (formative evaluation) and of carrying out change in their schools towards Active Learning methods and student-centred teaching methods. All data collection must be connected to a data analysis effort and requires special competencies. Sending out too many forms can be counterproductive and takes time for everybody.

During the pilot phase, the participating schools produced scenarios that were delivered in a later stage in at least two class groups. Below we offer a selection of some scenarios created

by the participating schools. Inside each school the scenarios have been shared and the Novigado scenario tool has been promoted. Schools can create their own set of Active Learning scenarios and create a culture of Active Learning practices.

Toolset Section

[05] – Teacher pre- and post-questionnaire
[06] – Student pre- and post-questionnaire
[30] – Sample scenario TR – Planets
[31] – Sample scenario FR – The Passport
[32] – Sample scenario PL – Designing a computer game about your town
[33] – Sample scenario PT – Robotics versus Creative Writing

➜ **https://bit.ly/novigado-training-toolsets**

NOVIGADO

ACTIVE LEARNING AND INNOVATIVE TEACHING
IN FLEXIBLE LEARNING SPACES

🏠 fcl.eun.org/novigado

f @futureclassroomlab

🐦 #Novigado