



NBS Academy MOOC “Nature-based solutions: Training approaches for educators and teacher trainers”

NBS Learning Scenario for Teacher Training Template

Designing engaging and inclusive learning environments



Presenting your Learning Scenario

A Learning Scenario can be for **educators** – teachers in formal education (early childhood education and care, primary, secondary), in non-formal education and in vocational training – and **teacher trainers**. It is a series of **learning activities** to be used with your **learners**. In this case, your learners are **teacher trainees** (pre-service teachers in ITE or in-service teachers in CPD), as this is a **Learning Scenario for Teacher Training**.

How to fill in the sections of the template

In the following pages, you will design your Learning Scenario to share it with the community. **Every bit is important**: all educational activities, your instructional strategies, your aims, the final outcomes and so on.

Each section provides you with **instructions** about what information needs to be included. Add the required information and **delete the instructions before submitting**.

Learning Scenario Basic Information

In this section, you need to add some information that supports the **identification of your Learning Scenario**. This will give the reader an **overview** of the essential elements of your Learning Scenario, ensuring that anyone who wants to use it can easily understand its focus, target audience, and educational goals. The title and keywords will help make your scenario **searchable**, while the summary provides a quick **snapshot of the content**. Additionally, the license ensures that your work can be shared and adapted by others under the appropriate terms. The overview breaks down key logistical details, including the subject areas, topics covered, and required materials, making it **easier for other trainers to assess whether the Learning Scenario fits their needs**. Finally, the aim of the lesson clearly defines the **intended learning outcomes** for learners.

The Learning Scenario Activities

This section outlines the **step-by-step structure of your Learning Scenario**. In the Activity Plan, you will list each activity by name, describe the procedure, and indicate the duration. The **Assessment** unit allows you to detail how you plan to measure the learners' understanding, whether through quizzes, projects, or other methods. The **Trainees' feedback** section is about how you plan to gather the feedback of the teachers you will train on the activities you propose.

Reflection on practice

This section is crucial for reflecting on your Learning Scenario and how it aligns with **EU key competency frameworks**, such as GreenComp and DigComp. This will help you and other educators assess the depth and relevance of the competencies promoted in your activities.

Finally, you will find a section with guiding questions to help you **reflect on your development process** and the choices you have made when designing this Learning Scenario (Process-oriented Assessment).

NBS Learning Scenario for Teacher Training Basic Information

Title

Designing engaging and inclusive learning environments

Author(s)

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Target audience

Indicate if this Learning Scenario targets:

- Initial Teacher Education (ITE) trainers - to train pre-service teachers
- Continuous Professional Development (CPD) trainers - to train in-service teachers

Summary

This learning scenario trains pre-service teachers to design inclusive, student-centered lessons using differentiation strategies and skills. Through collaborative lesson planning, peer teaching, and reflection, trainees build practical skills for creating engaging and equitable classroom environments. The LS emphasizes reflective practice and peer feedback to support continuous professional growth.

Keywords

Inclusivity, reflective practice, student- centered, differentiation

Aim of the training

To equip pre-service teachers with the knowledge and skills to design and deliver inclusive, student-centered lessons by applying principles of differentiation, and reflective teaching practices, in order to meet the diverse needs of all learners.

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Overview

Topic(s)	Student-centered pedagogy, inclusive education, lesson planning and differentiation, reflective practise
Preparation time	1-3 hours.
Implementation time	6 hours (6x45min)
Delivery mode	This Learning Scenario (training) is primarily designed for in-person delivery, as it includes interactive components like peer teaching, group collaboration, and live modelling of lessons. But with minor adaptations (e.g., using breakout rooms, collaborative digital tools like Google Docs or Padlet), it can also be effectively conducted in a hybrid or fully online mode.
Materials needed	List all the materials (online or physical) needed to carry out this Learning Scenario <u>Online materials and resources:</u> <ul style="list-style-type: none"> - Google Docs - Google Forms - Padlet <u>Physical materials:</u> printed student profiles (including diverse learning needs), lesson planning templates, peer feedback forms

Learning objectives

By the end of this Learning Scenario, pre-service teachers will be able to:

1. Identify the key components of an inclusive, student-centered lesson.
2. Apply principles of differentiation in planning.
3. Design a mini-lesson that reflects inclusive and engaging strategies.

4. Engage in peer feedback and reflective discussion to improve teaching design.

Pedagogical approaches

The pedagogical approaches used in this Learning Scenario include:

1. Experiential and outdoor learning
 - Pre-service teachers engage in hands-on activities such as lesson planning, peer teaching, and simulations to connect theory to practice. Possibly outdoor also.
2. Collaborative Learning
 - Group work and peer feedback foster shared knowledge construction and critical thinking.
3. Reflective Practice
 - Guided reflection helps learners evaluate their teaching decisions and grow professionally.
4. Modeling (Demonstration Method)
 - The trainer models effective inclusive teaching strategies, providing a live example for pre-service

NBS Learning Scenario for Teacher Training Activities

Activity plan

Fill in the table with the activity name, a brief description of the procedure, and the time needed to complete it.

Activity name	Procedure	Duration
1. Think-Pair-Share	<p>Activating prior knowledge <i>Prompt:</i> “What does an inclusive classroom look, sound, and feel like?”</p> <ul style="list-style-type: none"> ○ Share examples from prior practicum or observation. ○ Debrief as a group and co-create a working definition of inclusive, student-centered learning. 	45 min
<p>2.a) Lecture+discussion b) Modeling</p>	<p>Core content and modeling</p> <ul style="list-style-type: none"> • Lecture + discussion: Topics include: <ul style="list-style-type: none"> ○ Differentiation strategies (content, process, product) ○ Student voice and choice in the classroom ○ Culturally responsive pedagogy • Modeling: Trainer demonstrates a 10-minute mini-lesson using differentiation (e.g., literacy or STEM-based). <i>Debrief afterward:</i> What inclusive strategies were used? How did it feel as a learner? 	45 min
3. Group activity	<p>Collaborative design task</p> <ul style="list-style-type: none"> • Group activity: In small groups, pre-service teachers design a 20-minute lesson incorporating: 	90 min

	<ul style="list-style-type: none"> ○ At least two differentiation strategies ○ One form of formative assessment ○ One inclusive element (e.g., student choice, cultural relevance, flexible grouping) 	
5. Giving feedback and peer teaching	<p>Peer teaching and feedback</p> <ul style="list-style-type: none"> • Each group teaches a short excerpt of their lesson to peers. • Use a peer feedback protocol (e.g., “Glow and Grow” or “TAG – Tell something you liked, Ask a question, Give a suggestion”). 	45 min
5.	<p>Reflection and next steps</p> <ul style="list-style-type: none"> • Individual reflection prompt (Padlet): “How will you apply inclusive, student-centered strategies in your future classroom? What challenges do you anticipate, and how can you overcome them?” • Group discussion: <ul style="list-style-type: none"> ○ What did you learn today? ○ How can we continue developing inclusive teaching practices in our ITE journey? 	45 min

Assessment

Participation in discussions and activities, group lesson plan submission, peer feedback notes, personal reflection piece.

Trainees’ feedback

Google Forms and Padlet (giving feedback).

Reflection on practice

Promoted competence areas

Select which of the competence areas this Learning Scenario helps develop. For more information about these competences frameworks, [refer to this summary document](#).

GreenComp: The European sustainability competence framework

Select which competence areas from the GreenComp framework are promoted through your Learning Scenario.

- Embodying sustainability values
- Embracing complexity in sustainability
- ★ Envisioning sustainable futures
- ★ Acting for sustainability
- The Learning Scenario is not linked to any of the GreenComp framework competence areas.

DigComp: Digital competence framework for citizens

Select which competence areas from the DigComp framework are promoted through your Learning Scenario.

- Information and data literacy
- ★ Communication and collaboration
- ★ Digital content creation
- ★ Safety
- ★ Problem solving
- The Learning Scenario is not linked to any of the DigComp framework competence areas.

Reflect on your development process

After you have designed your Learning Scenario, take a step back and reflect on the choices you have made. Answer the questions below, related to specific sections of the template.

Target audience

Why did you choose ITE/pre-service teachers or CPD/in-service teachers as a target audience? Is your choice related to your personal/professional experience, or is this the first time you design a similar activity?

According to my professional experience, this is the first time I design activity like this. I chose ITE/pre- service teachers because I would like to be a part of a programme that provides these pre-service teachers (students) necessary knowledge, skills, and practical experience needed for their profession before they are hired to teach.

Context and relevance

Explain which teachers' skills needs you have aligned this Learning Scenario to, and why you think it is crucial that your trainees acquire them.

I think that to be a successful pre-service teacher, one should and need a blend of 21st-century skills (like critical thinking, communication and tech literacy) and professional competencies (such as curriculum design, classroom management, and an understanding of child development). A strong foundation in personal and interpersonal attributes, like patience, adaptability, empathy, and organizational skills, is also crucial for effective teaching and managing diverse classrooms. All those I aligned this LS to.

Activities

What was your source of inspiration for the activities? Which tools did you use to conduct your research? Explain if/how the research made you shift from your initial ideas and why.

My work in class for the past 20 years is my source of inspiration for making activities in this Lesson plan. I used web 2.0. tools.

What is the value of the pedagogical approaches you chose? Connect that to your previous experience in implementing them, if any.

The **value** of the pedagogical approaches in this learning scenario lies in their ability to:

- 1. Bridge theory and practice**
 - By engaging in experiential and constructivist learning, pre-service teachers move beyond passive learning to actively apply educational theories in real-world teaching contexts.
- 2. Develop critical teaching competencies**
 - Approaches like modeling and collaborative learning help participants

internalize inclusive strategies, differentiation techniques, and reflective habits essential for effective teaching.

3. **Foster professional identity and confidence**

– Reflective practice supports self-awareness and continuous improvement, while peer teaching builds confidence and professional collaboration skills.

4. **Promote inclusive and student-centered mindsets**

– The pedagogical design itself mirrors the inclusive, student-focused practices it aims to instill, reinforcing the value of these approaches by modeling them in action.

5. **Enhance engagement and motivation**

– Active and social learning methods make the training more dynamic and relevant, increasing learner motivation and retention of key concepts

Assessment

Why did you choose a specific assessment method or a mix of them? Are you also providing your trainees with ways to reflect on **how** they are learning, rather than just on **what** they are learning (encouraging process-oriented assessment)?

I am sure that it is more important to provide my trainees ways to reflect on how they are learning, rather than just on what they are learning. On that way I make sure to encourage them for opposite of only process-oriented assessment. That is why I chose a mix of assessment.

Competency development

Explain how GreenComp and DigComp are addressed in this Learning Scenario, and why it is important that your trainees develop these competences.

In this LS I tried to incorporate the specific teacher-focused DigComp framework to develop digital pedagogy and using GreenComp to build sustainability-related competencies. It is important that my trainees develop all those competences for creating learning experiences that develop both digital and green competences to prepare them for a "fit for the digital age" environment.

Overall

How was the development of this Learning Scenario for you? Mention your strengths and weaknesses, and how you overcame the challenges you encountered.

This LS was growing as I was growing. I was making it step by step. Of course, that I have strengths and weaknesses both, and through the work on this LS I overcame all challenges that I encountered! It was not the easy path. I have experience working in classroom for the past 20 years so I could easily transfer my skills in this LS.

About NBS Academy

[NBS Academy](#) is an Erasmus+ Teacher Academies project, co-funded by the European Union (Grant Agreement No. 101104412). The mission of NBS Academy is to set up an international Community of Practice on NBS education for both teachers and teacher training providers. It aims to do so through participatory approaches to activate the collective creativity of its members towards creating, testing and validating innovative, highly accessible, and transferable ITE and CPD programmes on NBS education.

About Scientix[®]

[Scientix[®]](#) is the community for science education in Europe. An initiative of European Schoolnet (EUN) that aims to promote and support a Europe-wide collaboration among STEM teachers, education researchers, policymakers and other educational stakeholders to inspire students to pursue careers in the field of Science, Technology, Engineering and Mathematics (STEM).

Annex

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