

ITELab Modules.
Handbook for Module B

Open Reference
Spring Pilot 2019

Designing for Learning

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UCD ITELAB Project Team



WELCOME TO THE ITELAB MODULE ON DESIGNING FOR LEARNING

Welcome to the first run of this ITELab Module **Designing for Learning**. The module is intended for generalist use not just for IT / ICT specialist student teachers – it is designed to be relevant to a wide range of student / beginning teachers / teachers in formation.

This short handbook provides all of us who are offering the module – or some aspects of it – with an overview of its underpinning philosophy and an outline of its structures, activities, and possible assessment arrangements. It is built around *adaptive framework* principles which allow the module coordinator locally to adopt / adapt as flexibly as appropriate.

Essentially, this handbook offers a shared reference point for module activities across the partnership. It is NOT a prescription but should be used as a reference point and guide for local offerings and activity. Week-on-week suggestions and support on running the module will be available to teaching staff at our Project Staff Hub, here: <https://itelab.wordpress.com/>

The framing and resourcing of the start-line materials for the module has been organised by UCD, Dublin: assessment arrangements are wholly in the hands of the local partners.

Please do not hesitate to contact me – conor.galvin@ucd.ie – if you have any ideas or questions or encounter any difficulties over the course of the module.

Our Student Hub for the spring run of the module is available at www.ITELAB.org/ .

Conor Galvin (PhD)
UCD ITELab Team Leader,
2017-19

January 2019

Designing for Learning

UCD Semester 2
2018-2019

UCD Teaching Term 21st January – 26th April 2019

Module Run 21st January – 4th March 2019

UCD Reading Weeks 11th March – 24th March 2019
[No on-campus classes]

Easter Session 15th April – 26th April 2019

Module B Framework
Opening Webinar
Spring 2019

18th January
1600-1730 CET
[1500-1630 Dublin]

Designing for Learning;
an introduction to the ITELab Module for partners

MODULE OVERVIEW:

Designing for Learning. Content & Activity Summary

UNIT /WEEK	TIMINGS [PROVISIONAL]	TOPIC
Friday 18 JAN 2019: Pre-module Webinar for Teaching Staff		
Wk 1	Monday 21 Jan. 1800-2000 CET [5pm-7pm Dublin]	What is Learning Design and why does it concern us? <ul style="list-style-type: none"> An exploration of the nature and value of learning design
Wk 2	Monday 28 Jan. 1800-2000 CET [5pm-7pm Dublin]	c21 Learning: innovative teaching & learning: <ul style="list-style-type: none"> What is "innovative teaching practice"? What are the characteristics of a "21st century educator"? What are the characteristics of a "21st century learner"? What school and system factors better support innovative teaching practices?
Wk 3	Monday 4 Feb. 1800-2000 CET [5pm-7pm Dublin]	Deeper Learning; the use of technology to enhance learning; <ul style="list-style-type: none"> 'Reverse engineer' one of the examples provided of a highly rated lesson-plan. Test your findings against an authoritative model of technology usage such as TPACK. Focus especially on issues of when, how and how much?
Wk 4	Monday 11 Feb. 1800-2000 CET [5pm-7pm Dublin]	Building Better; using newly-acquired design knowledge. <ul style="list-style-type: none"> Design and develop a lesson drawing on relevant materials from a selected EUN eTwinning Kit. Test the product through a critical peer review process – such as reflective practice
Wk 5	Monday 18 Feb. 1800-2000 CET [5pm-7pm Dublin]	Problem Based Learning; getting a technical edge. <ul style="list-style-type: none"> Exploring PBL & essential elements to develop learning experiences Working on the five PBL design principles in your planning The characteristics of authentic assessment & authentic learning
Wk 6	Monday 4 Mar. 1800-2000 CET [5pm-7pm Dublin]	Collaborative On-line Projects; issues and practices. <ul style="list-style-type: none"> Identify the key pedagogical approaches/teaching and learning styles that have been used in this project. What issues of cultural awareness and ethics does this project raise? Identify the elements that have come together to make this project successful.

Designing for Learning: Assessment

Assessment Type	Assessment Description	% of final grade	Timing
Lesson Scenario Development. [Locally assigned & Graded]	The design, production, resourcing, and quality-testing of a set of Learning Scenarios suitable for use with a designated learner group and in a specified setting. [SUGGESTED]	100%	End of Module

MODULE B: Designing for Learning

[3ECTS Level 3; configuration of hours of direct input & hours of related project work/ self-directed learning to be decided locally]

Focus	Concept	Competence Areas	Assessment
Learning Design for Beginning Teachers	Designed to: develop understanding, confidence, and good practice among beginning teachers relating to designing and teaching digitally-enhanced classes.	<ul style="list-style-type: none"> Develop practical capability relating to principled learning design Explore the value of learning scenarios to the beginning teacher / teachers in programmes of formation Professional engagement; communication, collaboration, and co-development. 	The design, production, resourcing, and quality-testing of a set of Learning Scenarios suitable to a designated learner group and setting
Objectives / Intended Learning Outcomes	At the conclusion of this module participants will be able to: <ul style="list-style-type: none"> meet the challenges of sourcing, (re)purposing, and developing a range of rich-digital instructional / learning materials for use in teaching contexts; plan, teach and evaluate digitally enhanced lessons based on learning scenarios that demonstrate strong levels of understanding and competence in relation learning design principles & practices identify opportunities and plan effectively for classroom and other learning activities that demonstrate innovative ICT usages. 		
<p>ITELab Modules are framed around the <i>DigCompEdu</i> areas of capability each of which is expressed in terms of specific competence and applications – with a total of 22 competences making up the full frame. These areas focus on different aspects of educators’ professional capability and activity. [See Annex 1] These are:¹</p> <ol style="list-style-type: none"> Professional Engagement; using digital technologies for communication, collaboration and professional development. Digital Resources; sourcing, sharing and creating digital resources. Teaching & Learning; Managing and orchestrating the use of digital technologies in teaching and learning. Assessment; using digital technologies and strategies to enhance assessment. Empowering Learning; using digital technologies to enhance inclusion, personalisation and learners’ active engagement. Facilitating Learners Digital Competence; enabling learners to creatively and responsibly use digital technologies for information, communication, content creation, wellbeing, and problem solving. 			

¹ From the final report of the DigCompEdu Project: *European Framework for the Digital Competence of Educators; DigCompEdu*, Redecker, C and Punie, Y (eds) (2017) EUR28775 EN.

Unit 1 UNIT FOCUS: What is Learning Design?

Wks 1-2

- The nature & potential of Learning Design;
- Learning Scenario thinking;
- c21 Learning: innovative teaching & learning.

Unit 1 is about building understanding of the key principles and practices of learning design & translating these into practical classroom/ learning focused activity in Learning Scenario format. The underlying model is that the beginning teacher/ student teacher experiences and practice aspects of using ICT more capably with their developing practice.

Wk1. What is Learning Design?

Start-up: watch and critically engage with a short video on Learning Design recorded a while back by Prof Grainne Conole: <https://www.youtube.com/watch?v=FaJrSwLL8Vg>

Ask students to listen out for: the underpinning philosophy, the intended uses of the framework, and its seven elements.

Development: Working in small groups students first discuss the nature of the module and the 'new' thinking involved. They then visit the Co-Lab site and explore the idea of a Learning Scenario. (<http://colab.eun.org/learning-scenarios>).

Discuss the possible value of this approach and this format to developing teaching plans for class activity. Generate a 2-slide Presentation / Report on findings to share with the class.

Consolidation: Visit either the TPACK site (<http://tpack.org/>) or the EU DigCompEdu site (<https://bit.ly/2zrfyb8>). Discuss how one or other this might be used to add an extra layer of value to your scenario development.

Use a Padlet (or similar) to gather class-wide reflections.

Follow-out: Individually, save locally a personal version of the Learning Scenarios template. Customise to the module as necessary. (<http://> <https://bit.ly/2zS5xkg>).

Capability building /DigCompEdu focus: 2:1 Selecting Digital Resources, 2:2 Creating & Modifying Digital Resources, 3:3 Collaborative learning.

Week 2. c21 Learning: innovative teaching & learning

Start-up: Plenary discussion on the question what is ‘innovative teaching’? Taking the short presentation by Abd Karim Alias as a starting point, review as a class the ‘commandments’ listed: https://www.youtube.com/watch?v=z_smSLnPLLY

Decide if all / some/ none of these seem to have relevance to their situation.

Development: 1: Have the students work in pairs/small groups to develop a short presentation for sharing on EITHER the characteristics of a “21st century educator” or the characteristics of a “21st century learner”. Suggest the Microsoft White paper on ‘transforming learning’ as one possible source: <https://bit.ly/2PZTUI6> 2: Suggest a *think, pair, share* activity where they first think about the questions individually and then collaborate with their group members to discuss and reflect the topics. 3: Share outcomes to a Padlet or similar.

Consolidation: Using the Padlet List as prompt, hold a class discussion on ‘realistic’ / ‘unrealistic’ visions of 21 century classrooms. Ask the students to identify a series of *One Change suggestions* that they think would improve the possibility of providing this type of learning setting for learners.

Follow-out:

Set a Challenge Question such as: What school and system factors better support innovative teaching practices? Refer the students to a research report such as McMorrough et al (2016) at <https://bit.ly/2QMcYkk> Ask them to be write a short personal blog / account of what they think school should do to encourage 21st century engagement.

Capability building /DigCompEdu focus: 1:2 Professional Collaboration, 1:3 Reflective Practice, 2:1 Selecting Digital Resources, 4:2 Analysing evidence.

Unit 2 UNIT FOCUS: Meeting the Digital Design Challenge; personally and with learners.

Wks 3-4

- Deeper Learning: the use of technology to enhance learning;
- Using newly-acquired design knowledge.

Unit 2 takes the discussion deeper in terms of how design can deepen learning experiences and translate into useful practical classroom/ learning activity. The underlying intention in this block is to encourage and support the beginning teacher/ student teacher experiences to engage more pedagogically with technology.

Wk3. Deeper Learning: the use of technology to enhance learning

Start-up: Watch and then deconstruct the video: [How are ocean currents formed?](https://bit.ly/2wFBeeN)
<https://bit.ly/2wFBeeN>

Ask students to consider in particular: the way the imagery and the brief, online messages carry the purpose of the lesson/ video and other aspects such as music, length etc.

Development: 1: Ask them to consider in groups how this video might be built-into a learning activity. Use the Lesson Scenario headings to guide this discussion. 2: Set them to work in groups to 'reverse engineer' one of the example provided at the site of well-developed lesson-plans. Ask each group to pursue a different element / stage of the lesson design. 2: Share findings from the activity and outline the value of this approach and this format to developing teaching plans for class activity.

Consolidation: Visit either the TPACK site (<http://tpack.org/>) Ask the students to consider how the TPACK headings might be used to better understand a design task like the lesson planning they have just reviewed.

Use a Padlet (or similar) to gather class-wide reflections.

Follow-out: Set a post-class Challenge such as: *Design a learning scenario that makes use of a short media clip such as those considered during the session to anchor a learning activity for a group of your learners.* Ask them to share the outcome on a class website / blog & and to comment constructively on one other entry they find there before their next session.

Capability building /DigCompEdu focus: 2:1 Selecting Digital Resources, 2:2 Creating & Modifying Digital Resources, 3:3 Collaborative learning.

Week 4. Building Better; using newly-acquired design knowledge

Start-up: Plenary discussion on the idea that it is often better to take and customise than to design from scratch; particularly when using digital elements to support learning.

Decide if this concept is relevance without exception to their situation. Bring up the issue of 'pre-designed' / 'packaged' lessons and the dangers these can present.

Development: 1: Direct the students to the eTwinning Project Kits site. (<https://bit.ly/2MK4HiA>) Allow time for them to explore the site. Lead a discussion on the possible value of this and similar 'repositories' of teaching materials & suggested activities. 2: Suggest that they work in subject / interest groups to identify a possible kit that they might use in the near future in a learning setting. Ask them to discuss and decide on what to include / exclude from the range of suggestions offered; and to be able to explain and justify their decisions. 3: Share outcomes in a plenary way.

Consolidation: Discuss as a class the value of having a quality mechanism to help guide inclusion / exclusion activities such as the one they have just completed. Suggest that they visit and explore the work of Pollard on reflexive judgement; Pollard (2014) <https://bit.ly/2wDjh1t> . This is a *critical peer review process* based on seven key characteristics of reflective practice. Ask the students to identify ways that using such a framework could aid in their planning and design for learning.

Follow-out:

Set a Challenge Question such as: What are the advantages and more problematic aspects of using 'pre-designed' lesson materials?

Capability building / DigCompEdu focus: 1:2 Professional Collaboration, 1:3 Reflective Practice, 2:1 Selecting Digital Resources, 2:2 Creating & Modifying Digital Resources, 3:3 Collaborative learning, 6.1 Facilitating learners' Information & media literacy, 6.2 Facilitating learners' Digital communication & collaboration.

Wks 5-6

- **Problem Based Learning;** getting a technical edge;
- **Collaborative On-line Projects;** issues and practices.

Unit 3 moves the focus to how problem-based and task-based learning activities can be enhanced through the careful use of media and technologies and how this can be designed into learning and teaching so as to add value to the learning experience, and how accessing online project activities – such as those associated with the idea of ‘collaborative on-line’ learning can be used to improve learner experiences.

Wk5. Problem-based Learning: getting a technical edge

Start-up: Watch the video used at a leading European university to introduce their students to the concept and practice of problem-based learning (PBL): <https://bit.ly/1MS80YC>

Ask students to consider if this approach may be relevant to their teaching settings: challenge them to find the positive as well as the problematic in the model.

Development: 1: Introduce the class to the five PBL principles advocated for in this Microsoft Document: <https://goo.gl/19eRoF>. 2: Have them consider in groups how these principles may be used to guide decisions in relation to the activity stages of a learning scenario design. Use the Lesson Scenario headings – perhaps using the headings of Explore, Map, Make and Remake to direct the work of certain groups. 3: Share outcomes from the activity to the whole-group.

Consolidation: Returning to their earlier work on Pollard and reflexive judgement; Pollard (2014) <https://bit.ly/2wDjh1t>. Ask the class to offer an interest group / subject group critical review of the idea of PBL.

Follow-out: Set a post-class Challenge to post a personal FlipGrid Report on the topic: *What do you see as the two or three key characteristics of ‘authentic learning’ and how does PBL seek to support these?* Ask them to share their FlipGrid response to an agreed class forum.

Capability building /DigCompEdu focus: 2:1 Selecting Digital Resources, 2:2 Creating & Modifying Digital Resources, 3:3 Collaborative learning.

Week 6. Collaborative On-line Projects; issues and practices

Start-up: Ask the class to review the SMART Technologies video here: https://youtu.be/90ZRMvdm_ZQ and to then make individual reaction notes before doing a think, pair, share activity on the viewing, commenting on what they see as the key pedagogical approaches/teaching and learning activities that have been used in this project.

Development: 1: Direct the students to the SMART Technologies site. (<http://bit.ly/1RRgDpr>) Ask them to consider in particular the arguments made for the power of the Learning Suite ecosystem. 2: Suggest that look closely at SMART Technologies well-articulated approach to using a live/ remote learning environment in support of PBL type activity in engineering classes. 3: Share outcomes to a Mentimeter List (www.mentimeter.com) and then be ready to discuss / defend in a class plenary.

Consolidation: Discuss as a class the elements that have come together to make this project successful. Discuss also as a class the challenge of designing access for all learners to activities such as those. Direct the class to a site such as <https://www.itu.int/en/ITU-D/Digital-Inclusion/Pages/default.aspx> which articulates well the need and the possible ways to begin working on more inclusive design and materials.

Follow-out:

Set a Challenge Question such as: *Are there any issues of cultural awareness and ethics that projects like this raise and which need to be addressed in ways that add value to the learning?* [Mention equity and access as needing considerable thought.]

Capability building /DigCompEdu focus: 1:3 Reflective Practice, 2:1 Selecting Digital Resources, 2:2 Creating & Modifying Digital Resources, 3:3 Collaborative learning, 5:1 Accessibility & Inclusion, 6.1 Facilitating learners' Information & media literacy.

Module Assessment **Locally Arranged and Locally Framed**

Lesson Scenario Development;
Pedagogically strong &
Technology Enhanced
Learning

The design, production, resourcing, and quality-testing of a set of Learning Scenarios suitable for use with a designated learner group and in a specified setting. [SUGGESTED]

[Locally framed and parametered as appropriate to a 3credit ECTS offering.]

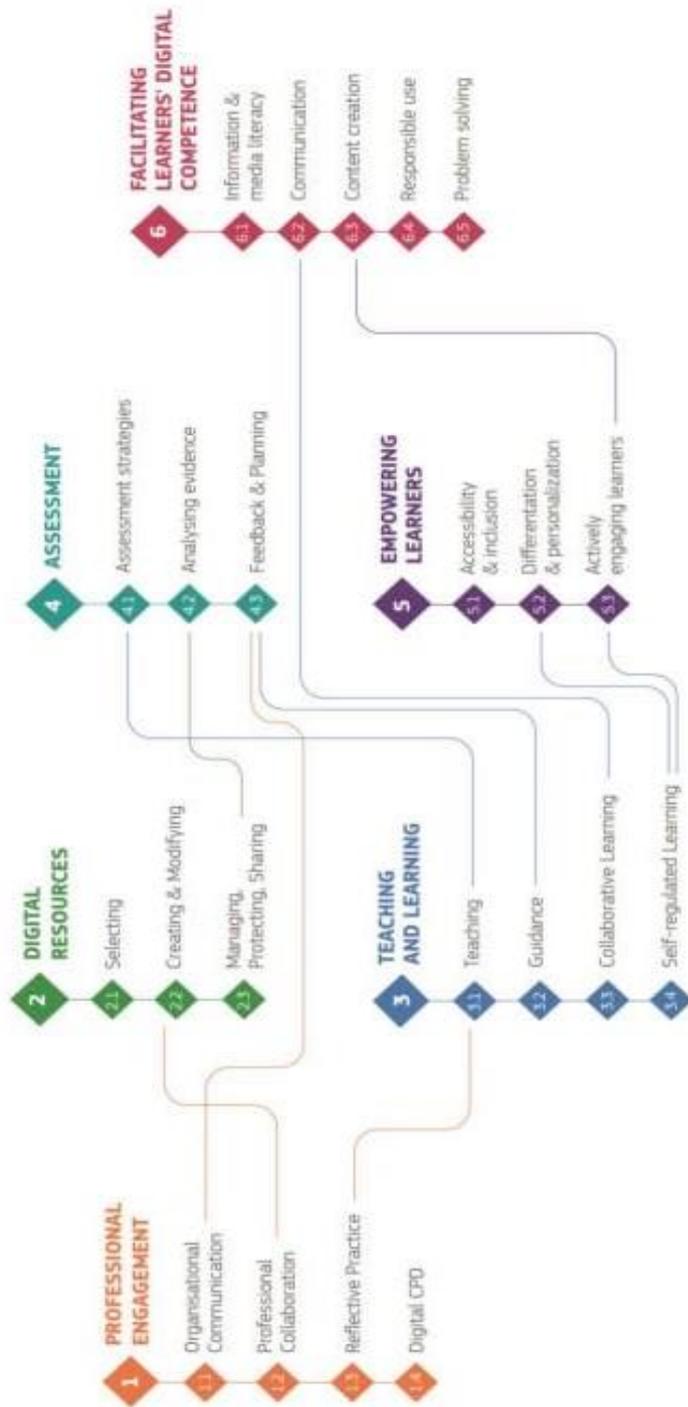


Figure 1: Overview of the DigCompEdu framework

From: Final Report of the DigCompEdu Project: *European Framework for the Digital Competence of Educators*; DigCompEdu, Redecker, C and Punie, Y (eds) (2017) EUR28775 EN

ANNEX 2

Link to the Learning Scenarios Template:

The image shows a screenshot of a web-based form for creating learning scenarios. At the top left, there is a logo for 'CO-LAB Creative Classroom Lab'. Below the logo, the text 'Scenario Title:' is followed by a large empty text box. Underneath, there is a horizontal row of seven circular icons, each representing a learning activity: 'dream', 'explore', 'map', 'make', 'ask', 're-make', and 'show'. Below these icons is a table with two rows: 'Learning Activities' and 'Time (weeks)'. The 'Learning Activities' row contains the descriptions for each activity: 'Free thinking, sharing ideas', 'Looking for and finding content', 'Structuring thoughts', 'Developing or producing', 'Interviewing/ Feedback', 'Revising', and 'Performing and presenting'. The 'Time (weeks)' row is currently empty. Below the table, there are several sections with labels and horizontal lines for input: 'Goal (learning outcomes, match to specification)', 'Description (of each learning activity)', 'Learning Environment/s (the physical or virtual setting(s) in which learning takes place)', 'Digital Technologies and Tools', and 'Roles (teacher, students, parents, experts, etc.)'. At the bottom left, there are logos for 'Erasmus+' and 'European Schoolnet'. At the bottom right, there are some decorative colored circles.

CO-LAB Creative Classroom Lab

Scenario Title:

Learning Activities	Free thinking, sharing ideas	Looking for and finding content	Structuring thoughts	Developing or producing	Interviewing/ Feedback	Revising	Performing and presenting
Time (weeks)							

Goal (learning outcomes, match to specification)

Description (of each learning activity)

Learning Environment/s (the physical or virtual setting(s) in which learning takes place)

Digital Technologies and Tools

Roles (teacher, students, parents, experts, etc.)

Erasmus+ European Schoolnet

http://colab.eun.org/c/document_library/get_file?uuid=3a379a60-ef14-43d6-89f2-d454cdb5004c&groupId=5897016