

# Designing innovative micro-credentials: Best practices and open dialogue with CHARM-EU

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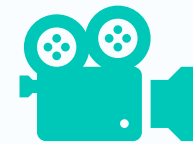
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# Programme



**We discuss how educators designed their programmes reflecting on the CHARM-EU educational principles:**

- Challenge-Based Learning
- Transnational learning
- Student-centred learning
- Reflective learning (contained in transdisciplinary learning, transversal skills, situated learning)
- Sustainability



**Lightning talks by:**

- Shay Butler (TCD) Practical Frameworks for Innovation
- Anna Granberg (ÅAU) Innovative Teaching in Inter-institutional Hybrid Classrooms
- Annet van der Riet (UU) Transformational Leadership in Inter-institutional Higher Education
- Michelle Kearns (TCD) Assessment & Management of Frailty in Ageing Adults
- Maria Pigott (TCD) Natural Products: Harnessing Nature's Resources for a Better World

**Joint Q&A and discussion – ask questions in the chat**



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## Challenge-based learning – driving committed learner engagement

Shay Butler – Trinity Innovation and Enterprise, Trinity College Dublin  
Ireland



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# Practical Frameworks for Innovation



**Description:** This micro-credential introduces three essential innovation frameworks: Creative Problem-Solving, Design Thinking, and Systems Thinking. Over seven weeks, learners gain a fundamental understanding of these core innovation frameworks and their practical application to real-world challenges within their individual context.

## Number of learners:

- 16-20

## Target group:

- Anyone keen to improve their problem-solving skills

## Practical Frameworks for Innovation

Three frameworks to power your problem-solving efforts and innovative results

Creative  
Problem Solving

Systems  
Thinking

Design Thinking

# Practical Frameworks for Innovation



## Objectives:

- Introduce learners to structured problem-solving tools, techniques and processes
- Enable practical application of these problem-solving methods to a real-world challenge
- Develop transversal skills such as critical thinking, analytical thinking, empathy and active listening



## Learning outcomes:

By the end of the course, learners will be able to

- Explain and apply key problem-solving frameworks, including Design Thinking, Creative Problem Solving, and Systems Thinking.
- Conduct an innovation sprint to tackle a real-world challenge within their own context
- Demonstrate effective problem-solving, critical thinking, communication and collaborative skills in addressing complex issues.



# Practical Frameworks for Innovation



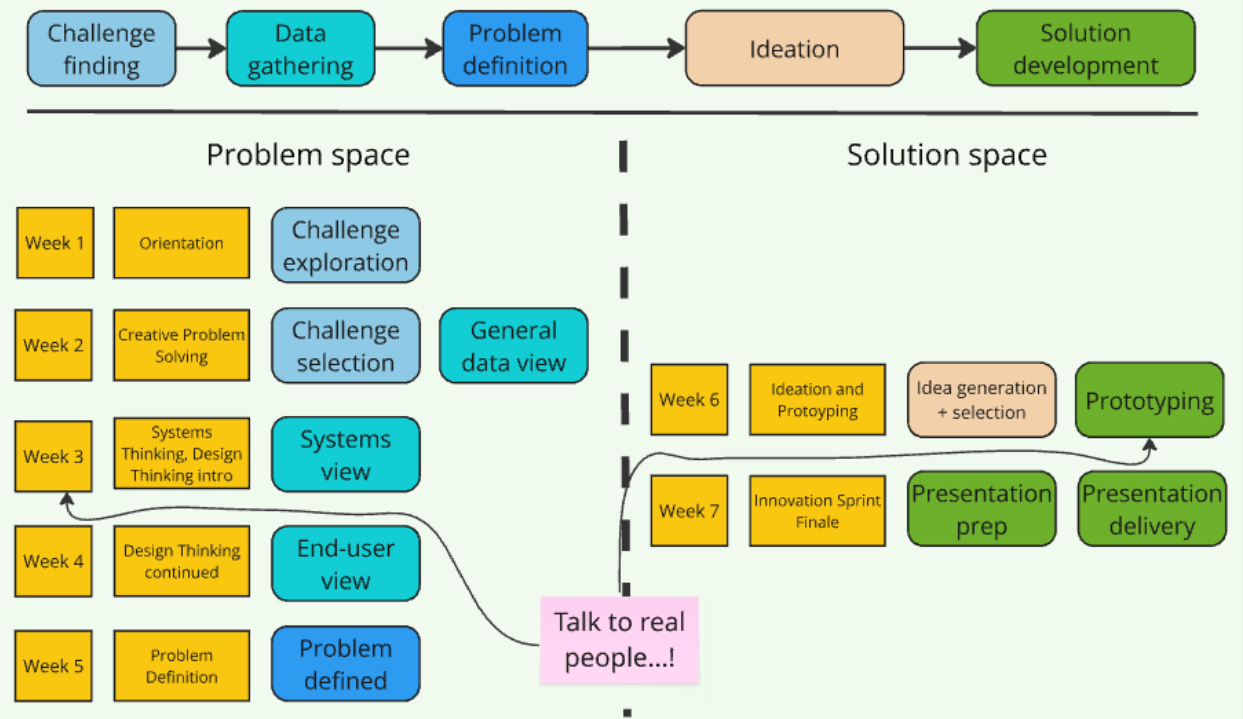
## Educational principle: Challenge-based learning

### In practice:

Students carry out an innovation sprint on a complex personal or work-related challenge. They curate their own challenge-solving pathway using select tools, techniques and steps from their newly acquired problem-solving toolkit.

- Explore real-world challenges
- Gather multiple data viewpoints of challenge to improve overall understanding and inform problem definition
- Develop solutions to early-stage prototypes for testing
- Present findings to peers and stakeholders

## Practical challenge journey



# Practical Frameworks for Innovation



## Tips:



- Practical workbook – as basis for challenge journey
- Don't overload – max. two core challenge activities per session
- In-person kick-off – group forming
- Peer buddy groups – Triads not Pairs

## Challenges:



- Personal versus work-related challenge selection
- Learning curve for online collaborative tools, i.e. Miro

## Key takeaways:

- Learner purpose/interest/agency is established through exploration and identification of a individual challenge that matters to them
- Discussion moments highly valued by learners – both facilitator-led and within peer buddy groups
- Push learners to bring their challenge to others – either to inform the problem or test the proposed solution



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## Inter-institutional hybrid learning

Anna Granberg – Åbo Akademi University  
Finland



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# Innovative Teaching in Inter-Institutional Hybrid Classrooms



## Description:

- Learning activities and curriculum design in an inter-institutional hybrid classroom
- Pedagogy/theory of hybrid teaching

- Best practices for teaching in an inter-institutional hybrid classroom
- Importance of inter-institutional collaboration for module development in a hybrid classroom

**Number of learners: 12**

**Target group:** Teachers, Teaching assistants, educationalists and digital teaching support in universities.

## Innovative Teaching in Inter-Institutional Hybrid Classrooms

Week 1 ●

Week 2 ●

Week 3 ●

Week 4 ●

Week 5 ●

Week 6 ●

Thing link as a one stop shop

# Innovative Teaching in Inter-Institutional Hybrid Classrooms



## Learning outcomes:

After passing a course, the student is expected to:

- Design and apply inter-institutional hybrid classroom curricula, learning activities, assessments, and best practices.
- Develop role descriptions and responsibilities for inter-institutional hybrid classroom participants.
- Explain and compare pedagogical theories that apply to inter-institutional hybrid classrooms.
- Establish positive communication practices for an inter-institutional hybrid classroom.
- Describe the basic technological requirements for an inter-institutional hybrid classroom.



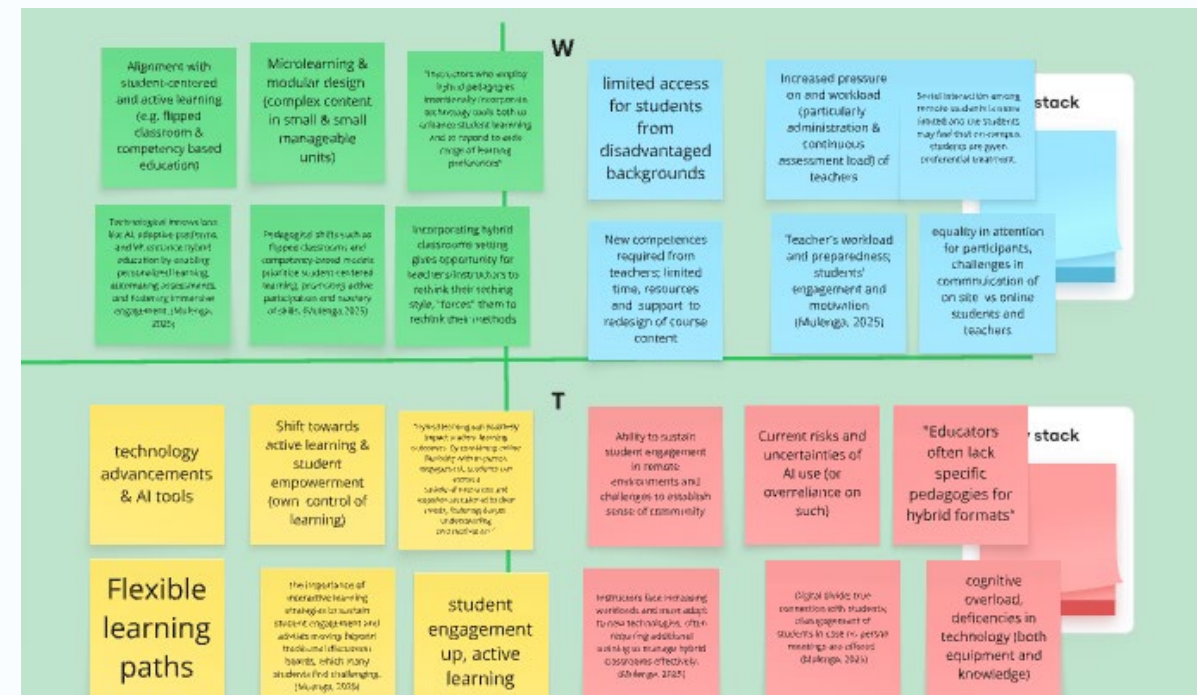
# Innovative Teaching in Inter-Institutional Hybrid Classrooms



## Educational principle: Transnational and intercultural learning

### In practice:

- Teachers from several universities and backgrounds joined in.
- I would also like to add **Transdisciplinary** and, of course, **Technology-enhanced**.
- It is rewarding for teachers to meet other teachers from other disciplines and compare differences and similarities.



SWOT analysis for hybrid teaching and learning

# Innovative Teaching in Inter-Institutional Hybrid Classrooms



## Tips:



- Several teachers brought different views → dynamic course
- Pair teaching – was successful in an online session
- Thinglink as the one stop shop – and Miro as the VLE worked very well

## Challenges:



- Asynchronous sessions – how to make sure the participants are active and preferably collaborate
- Assessment needs to be communicated clearly in the beginning – dedicated « place »

## Key takeaways:

- Joint effort – input from several trainers – less burden per person → our own competence development
- Transnational and inter-institutional group – dynamic atmosphere
- Open VLE; ThingLink and Miro – no need for logins or training
- Learners worked on their own cases that they could apply in their own teaching



# Designing innovative micro-credentials: Best practices and open dialogue with CHARM-EU



## Transformational Leadership in Inter-institutional Higher Education

Annet van der Riet – Utrecht University  
The Netherlands



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# Transformational leadership in inter-institutional higher education



Winter School on Inter-institutional Leadership in Higher Education focusing on a strategic area in higher education crucial for universities: inter-institutional collaborations. Such as European University Alliances and other larger-scale inter-institutional cooperations that universities engage in. Subjects such as inter-cultural skills, boundary-crossing and transdisciplinary collaboration in higher education will be discussed.

**Number of learners: 17**

**Target group: Leaders in inter-institutional collaborations in higher education, involved in:**

- Leading a European University Alliance
- Leading a faculty or department towards inter-institutional collaboration



# Transformational leadership in inter-institutional higher education



## Objectives:

After the course on leadership for inter-institutional collaborations, participants are able to:

- Apply theories and strategies **to foster innovation** within their institutions and inter-institutional collaborations.
- Understand and work effectively within **complex institutional frameworks**, addressing barriers to collaboration.
- Demonstrate **intercultural communication** skills to promote diversity, equity, and inclusion in leadership roles.
- Develop sustainable, cross-institutional partnerships by leveraging **European strategies** and resources.
- Employ **storytelling** techniques to inspire, persuade, and effectively communicate their vision for innovation and inter-institutional collaboration.
- Design and articulate innovation initiatives, incorporating feedback and insights gained throughout the winter school.





## Educational principle: student-centred learning

### In practice:

- Needs analysis
- Motivation letters and intake interviews
- Personal innovation project during the winter school
- Coaching sessions & peer feedback

Speakers of the event got information from the intake interviews beforehand, to adjust their presentations accordingly.



# Transformational leadership in inter-institutional higher education



## Needs analysis

- What target groups would benefit most from this type of training
- What needs does your alliance/institution have related to inter-institutional leadership?
- What knowledge, skills, or competencies do inter-institutional leaders in HEIs require?
- What future changes do you see coming in the tasks of inter-institutional leaders in HEIs? How should we address those in a training?
- Do you miss certain content or skills addressed in current leadership programmes?
- What type of innovation projects could participants work on during the programme?

## Intakes

- Can you tell me about your current role and how it involves inter-institutional collaborations?
- Are you currently working on or planning an innovation project related to inter-institutional collaboration?
- What questions or challenges arise in this project?
- What is your vision for its impact?
- What do you hope to gain from the winter school?
- What aspects of the programme resonate most with your needs?
- Are there challenges in your work that you hope this programme can address?
- Are there any particular skills you hope to improve?

# Transformational leadership in inter-institutional higher education



## Tips:



- Know the personal needs and wishes
- Personalised and active learning
- Feedback and mentor support
- Take the room layout into account

## Challenges:



- Time investment
- Flexibility in time and location

**Key takeaways:** For professionals, student-centred learning is always important, because they bring a lot of knowledge and experience.



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## Reflective learning for healthcare professionals – maximizing learning in public health pedagogy

Michelle Kearns – Trinity College Dublin  
Ireland



EÖTVÖS LORÁND  
UNIVERSITY | BUDAPEST



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# Assessment & Management of Frailty in Ageing Adults



**Description:** This micro-credential enhances healthcare professionals' education on Comprehensive Geriatric Assessment and the management of common geriatric syndromes to help achieve a more gerontologically and frailty-attuned healthcare workforce.

**Number of learners: 50**

**Target group:** Health or social care professionals working with older adults in any setting



# Assessment & Management of Frailty in Ageing Adults



## Objectives:

- Develop a deep understanding of the concept of frailty
- Recognise the importance of evidence based research in ageing and frailty
- Develop transversal skills such as critical and reflective thinking skills for future practice
- Recognise and reflect on the importance of the lived-in experience for patients



## Learning outcomes:

### By the end of the course students should be able to;

- Describe the concept of frailty in ageing adults and understand the biological underpinnings of frailty in ageing adults.
- Differentiate the various methods for identifying frailty in ageing adults.
- Identify the relevance & importance of assessing frailty in healthcare settings.
- Outline the principles and application of comprehensive geriatric assessment (CGA) in the management of frailty and geriatric syndromes
- Be able to apply the theoretical learning to their own work or future work through reflective writing assignments



# Assessment & Management of Frailty in Ageing Adults



## Educational principle: Reflective-based Learning

### In practice:

Students are tasked with reflecting on how the **identification, assessment and management of frailty** adds value to a **practice scenario**. They are asked to write a reflective essay on how they can incorporate the knowledge gained throughout the course and from independent research to a real-life scenario or a scenario they may encounter in their line of work in the future. In particular, they are encouraged to;

- **Utilise their critical analysis skills**
- **To think independently & reflect on their own work situation**
- **Apply evidence-based research to a scenario**
- **Evaluate how this new learning will enhance a real-world scenario to improve future patient outcomes**



# Assessment & Management of Frailty in Ageing Adults



## Tips:



Encourage reflective learning from the start through active discussions, collaboration, independent thinking, student engagement (active discussions, vevox polls, Q&A)



## Challenges:

- Reflective writing is very often the opposite of scientific writing so students may struggle to think reflectively
- Balancing disciplinary differences in approaches to the concept of frailty

## Key takeaways:

- Engaging in reflective practice enables students to identify gaps in their knowledge and skills, which establishes areas to focus on for their ongoing professional development.
- **Improved critical thinking skills and clinical decision making.** The evaluation skills learned in reflective practice develop critical thinking skills, which can be used to solve complex problems effectively and make informed decisions. By analysing past decisions and understanding the reasoning behind them, healthcare professionals can identify bias or errors which can be eliminated for future practice.
- **Enhanced empathy and patient-centred care.** Reflective practice encourages students to consider different perspectives, including those of their patients. This allows them to improve the quality of care delivered to patients and adopt an approach that is patient-centred.
- Student supports & inclusion important



# Designing innovative micro-credentials: Best practices and open dialogue with CHARM-EU



## Sustainability through the lens of natural products

Maria Pigott – Trinity College Dublin  
Ireland



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# Natural Products: Harnessing Nature's Resources for a Better World



**Description:** This Massive Open Online Course (MOOC) explores applications, opportunities and challenges for bioactive natural products and their interdependency with the environment, biodiversity and climate.

## Number of learners:

- Unlimited
- Self-paced
- Join anytime

## Target group:

- Anyone
- No prior skills or qualifications required, just an interest in learning



# Natural Products: Harnessing Nature's Resources for a Better World



## Objectives:

- Provide an educational course on natural products that is accessible to all.
- Introduce challenges and opportunities encountered in natural product development.
- Introduce the role natural products can play in sustainable development and the transition to a circular economy.



## Learning outcomes:

By the end of the course, learners will be able to

- Recognise the abundance of nature-derived compounds and products that we use, from food and cosmetics to medicines and biotechnologies
- Probe the sustainability of processes and products
- Identify opportunities for the sustainable use of natural products





## Educational principle: Sustainability

### In practice:

Learners work through case studies where sustainable supply is a challenge or an opportunity.

- Paclitaxel – sustainable supply was a critical challenge in the development of this chemotherapy drug
- Bamboo – is it always sustainable?
- Olive oil pomace – an opportunity for waste valorisation?



# Natural Products: Harnessing Nature's Resources for a Better World



## Tips:



- Consider educational platforms carefully
- Avail of guidance from University digital learning and development teams

## Challenges:



- Learners will have diverse backgrounds and perspectives and you must appeal to a broad audience at the outset for good course retention

## Key takeaways:

- MOOCs offer accessible and flexible learning opportunities
- MOOCs have global reach
- Many course run formats are possible

