

Digital Challenge Innovation Learning Lab (D-CHILL)

ProjectInc: an international collaboration project aimed at fostering digital literacy and innovation through a blended intensive program (BIP). 2025

Overview and Evaluation of ProjectInc BIP 2025.



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Chapter 1: Introduction

The **Digital Challenge Innovation Learning Lab (D-CHILL)** is a Blended Intensive Program (BIP) funded under Erasmus+, designed to enhance digital literacy and promote innovative problemsolving among its participants. The program offers a unique combination of virtual and physical learning environments, providing students and facilitators from diverse backgrounds the opportunity to collaborate across borders.

Program Objectives

The primary objectives of D-CHILL are:

- To generate innovative solutions to real-life problems by assembling multicultural, multidisciplinary teams.
- To enhance digital skills, literacy, and awareness among all participants, including students, facilitators, and partner organizations, through both virtual and in-person engagements.

This program aligns with the Erasmus+ priority of **Digital Transformation**, equipping participants with essential competencies required for the evolving digital landscape.

Participants and Structure

The program involves:

- 29 students from 4 countries.
- Participation of 8 teachers/trainers representing 4 Higher Education Institutions (HEIs):
 - Hanze University of Applied Sciences
 - South East Technology University
 - Polytechnic Institute of Bragança
 - Hochschule Bremen, City University of Applied Sciences

The program includes an eight-week online component, followed by an intensive five-day inperson session in Groningen, the Netherlands, from **December 9 to December 13, 2024.**

Learning Approach

D-CHILL employs a **design thinking methodology**, combined with the **European DigComp Framework,** ensuring a hands-on, iterative process for addressing real-world challenges. Mixed-student teams engage in:

- 1. **Online Phase:** Conducting research, stakeholder analysis, and initial solution validation over a period of eight weeks with guided facilitation.
- 2. **Physical Phase:** Developing, testing, and presenting prototypes to a professional jury during the final week of the program.



Throughout both phases, participants will engage in structured activities that enhance their digital competencies and practical application of their knowledge through collaboration and innovation.

Chapter 2: Program Overview

2.1 Program Description

The **Digital Challenge Innovation Learning Lab (D-CHILL)** is an international collaboration project aimed at fostering digital literacy and innovation through a blended intensive program (BIP). The program is structured around the **design thinking cycle**, guiding students in multidisciplinary teams to develop digital solutions for real-world challenges presented by professional clients. The program is delivered through a combination of virtual and face-to-face components, enhancing participants' digital competencies and collaboration skills.

2.2 Target Audience

The program is designed for:

- **Students:** Undergraduate students from multiple disciplines, interested in gaining hands-on experience with digital solution development.
- **Facilitators:** Instructors and industry professionals guiding the students through the design thinking process.
- **Partner Organizations/Clients:** Real-world clients providing practical challenges for students to address.

2.3 Approach and Activities

The program follows a structured design cycle, divided into the following phases: The program follows a structured design cycle, divided into the following phases:

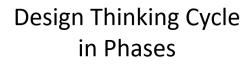






Figure 1Design cycle as used in DCHILL

1. Preparation Phase (Week 1):

- Understand the client's needs and project goals.
- Team introduction and role clarification.
- Deliverables: Planning, collaboration contract, interview questions.

2. Understand Phase (Weeks 2-3):

- Conduct interviews and desk research.
- Create a visual summary/conclusion.
- Assessment: Go/No Go feedback.

3. Observe Phase (Weeks 4-5):

- Conduct interviews and observations.
- Create personas and insights documentation.
- Assessment: Go/No Go feedback.

4. Define Phase (Weeks 6-7):

- Formulate a Point of View (POV).
- Define success criteria and design requirements.
- Midway peer presentation and feedback.

5. Ideate Phase (Week 8):

- Brainstorm and generate a wide range of solutions.
- Present three concept sketches to the client.
- Assessment: Go/No Go feedback.

6. Prototype and Test Phase (Week 9, Face-to-Face):

- o Develop functional prototypes and conduct user testing.
- Present final solutions to a professional jury.
- Assessment based on solution effectiveness and feedback incorporation.

Throughout all phases, the program utilizes an online collaboration platform (Miro) to track progress and facilitate teamwork.



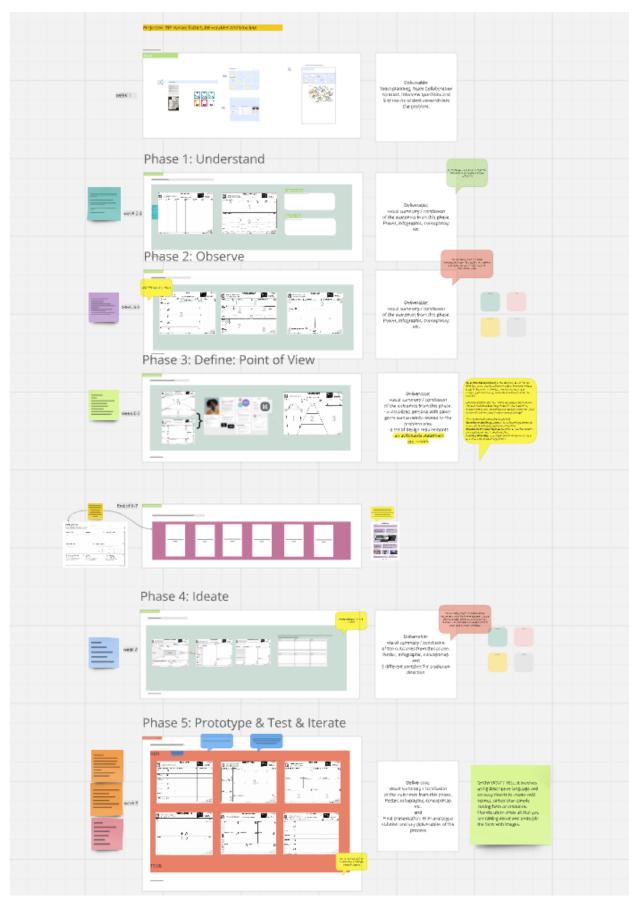


Figure 2 Miro Visual Workspace in DCHILL

2.4 Learning Objectives

The program aims to achieve the following learning outcomes, based on the DigComp Framework and design thinking principles:

- **Problem Framing:** Ability to analyse and define complex challenges.
- **Creative Ideation:** Generating and visualizing innovative concepts.
- **Prototyping:** Developing digital prototypes from low to high fidelity.
- **Testing and Iteration:** Conducting user tests and refining solutions.
- **Collaboration:** Working in multidisciplinary and multicultural teams.
- **Presentation Skills:** Effectively communicating solutions to stakeholders.

2.5 Tools Used

The following tools are integrated into the program to support learning and project development:

- Miro: Virtual workspace for collaboration and documentation.
- **Design Thinking Toolbox:** Framework for each design phase.
- Online Meeting Platforms: For synchronous team check-ins and presentations.
- **Prototyping Software:** Tools for creating digital prototypes (e.g., Figma, Adobe XD).
- **Research Tools:** For gathering insights and user feedback.

Chapter 3: Assessment and Evaluation

3.1 Evaluation of Program Quality

The program quality is assessed through feedback from both facilitators and students, focusing on the online and face-to-face components. The feedback was gathered using online surveys.

Facilitators' Feedback

Participation overview: Total invitations sent: 8, Total responses received: 5 (63 % response rate).

Online Part

- What went well: The online classes were successful, particularly with the use of Miro and structured weekly meetings.
- What needs improvement: Some facilitators found it challenging to attend all sessions and coordinate effectively with co-facilitators.
- **Other suggestions/comments:** There were concerns that students did not engage deeply in some activities, requiring better engagement strategies.

Face-to-Face Part



- What went well: The physical location and classroom setup were well-received.
- What needs improvement: Some facilitators mentioned a need for better planning in terms of logistics and room availability.
- **Other suggestions/comments:** Organizing the BIP was found to be a heavy workload, and facilitators suggested more preparatory support.

Students' Feedback

Participation Overview: Total invitations sent: 28, Total responses received: 11 (40 % response rate).

Online Part

- What went well: Students appreciated the overall structure and teamwork elements.
- What needs improvement: Some students faced scheduling challenges, making it difficult to align with their teams for online meetings.
- **Other suggestions/comments:** While most were satisfied, a few students suggested improvements in coordination and clearer instructions.

Face-to-Face Part

- What went well: Icebreaker activities and team-building exercises were particularly appreciated.
- What needs improvement: Some students felt that certain aspects, such as workshop pacing, could be improved.
- Other suggestions/comments: No major complaints; students largely enjoyed the inperson experience and teamwork opportunities. The program quality is assessed through:
- **Student Feedback:** Collected through surveys and reflection reports.
- Facilitator Reviews: Regular check-ins and evaluations of progress.

3.2 Digital Literacy Assessment

Students' and facilitators' digital literacy skills are assessed using the **DigComp Framework**, with evaluations conducted at the end of the program. Responses were collected using an online survey. The key competencies include:

- Information and data literacy.
- Communication and collaboration.
- Digital content creation.
- Problem-solving.
- Safety in digital environments.



Summary of Digital Literacy Assessment Results

Participation Overview: Total invitations sent: 33, Total responses received: 15 (45 % response rate).

The evaluation of digital literacy competencies among facilitators and students revealed key improvements across all assessed areas:

1. Communication and Collaboration

• Significant improvement in adapting communication styles and facilitating teamwork across cultures.

2. Digital Content Creation

• Participants demonstrated enhanced abilities in creating and managing digital content effectively.

3. Problem-Solving and Innovation

• Increased confidence in identifying and using digital tools to address collaboration challenges.

4. Online Safety and Troubleshooting

• Notable growth in handling technical challenges and ensuring digital safety.

The chart below provides a visual representation of the improvements observed:

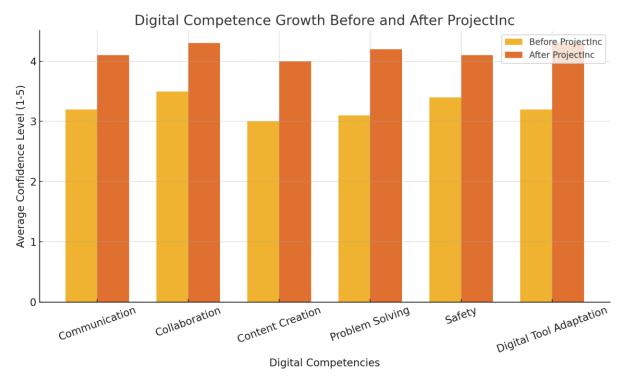


Figure 3 Evaluation of digital literacy competencies



For further details, please refer to the document 'Digital Competence Growth, ProjectInc_.pdf'.

3.3 Recommendations

Based on the evaluation results, recommendations for improving the program include:

- Strengthening the online collaboration component.
- Enhancing facilitator training.
- Providing additional resources for prototyping and testing.