2BDIGITAL COMPETENCES TEACHING, LEARNING AND ASSESSING METHODOLOGY

On-line methodology for transversal competences development in TVET

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ENTREPRENEURIAL LEARNING IN A DIGITAL ENVIRONMENT

The COVID-19 crisis has made even more evident how global, unstable, volatile, and increasingly more technological driven and dependent our society and labour market is, emphasising the urgent need for people to develop competences to constantly adapt to change, and to the digital way of living, working and learning.

This digital transition has placed a lot of stress on the educational system, forcing it to put forward immediate distance teaching and learning solutions that often took both teachers and learners outside of their comfort zone, with teachers converting physical classrooms into digital learning environments overnight, and students adapting to new online learning environments on record time. Teachers have struggled to take advantage of the potential of digital technologies to provide an effective e-learning experience to their students and learners have not always had the specific digital, personal, and transversal competences to keep up with digital learning. This is particularly the case with early leavers from education and training, who are more likely to be neither employed nor in education or training (NEETs) and suffering social exclusion and poverty.

VET should be helping to retain in education and training learners who would drop out from general education, and to prepare a successful transition of students into the labour market. This training programme is created for teachers, with a clear focus on the students. The methodology set out here describes a process and approach which delivers on the opportunity to develop the competencies set out in the 2BDigital framework. The approaches aim to provide engaging, purposeful and meaningful learning experiences rooted in the needs, interests, experiences and aspirations of the learners it is designed for.

The learning design of this programme aims to be powerful, in that it is linked to the urgent priorities of our time through the SDGs. In these anxious times, with youth mental health issues on the increase, the invitation to address and resolve the wicked problems of our age is positive and constructive directly, collaboratively and creatively.

The learning experiences aim to empower young people with agency in their learning, inviting them to contribute to the what, why and how of their learning, as they will need to in life and work. Similarly, students are required to take increasing responsibility for their learning to promote ownership of lifelong competence development.

The learning design aims to activate students as value creators in their communities, as they explore ways in which they can help others to create a better world. The focus on citizenship and ethical thinking and action builds confidence, belonging and a sense of responsibility.

The collaborative learning in the structure of the programme harnesses the social potential and motivation of young people, providing safe and supported spaces for learners to rehearse important employability skills like communication and people management.

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The tools and approaches are not intended to be prescriptive, but rather to act as a guide for less experienced teachers, or those who prefer clear steps to follow. Teachers are invited to adapt and adopt approaches as they see fit and experimentation with a greater variety of methods is encouraged. Below are links to Open Educational resources outlining key elements and steps of different approaches.

WHAT WILL YOU FIND IN THIS DOCUMENT

This guide proposes a methodology with which to teach, develop and evaluate transversal digital competencies for learning, working and living in the digital world.

Following the principles of agile methodologies such as SCRUM and focusing on project-based learning, we offer a program to foster social entrepreneurship focused on SDG challenges while developing key competencies such as collaboration in digital environments, content creation or online wellness.

In the guide you will find:

- ✓ A first seminar for teachers: Here we explain the methodology, tools and procedures to develop and evaluate the competencies.
- ✓ A summary sheet to develop, step by step, each of the 5 sprints. It contains links to the key activities and suggested times.
- ✓ A summary sheet and a guide to develop the reflection and recognition seminar to conclude the methodology.
- ✓ Guidance for teachers corresponding to each sprint: more detailed information to facilitate the development of each of the sprints from a greater knowledge of the subject to be addressed and the approaches that promote it.
- ✓ Links to other online tools and resources that can be useful for online teaching.
- ✓ The complete competence evaluation methodology proposed with alternative approaches for a quantitative assessment and a more detailed explanation.

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TRAINING SEMINAR OUTLINE: OVERVIEW OF METHOD AND WAYS TO USE IT!

The training seminar is one day's training to provide educators with an overview of the training. This training includes a brief overview of the development and design, but is more focused on the educator as learner, to enable trainees to engage with the training from the learner's perspective.

OBJECTIVES	Task based objectives: ● To introduce participants to the overall method and supporting rationale ● To provide opportunity for teachers to ask questions about the method ● To generate interest, motivation and energy for the method and potential of online learning and competence development
OVERVIEW	This session aims to introduce the participants to the training methodology and structure, mapping how the different elements fit together to support and enrich each other. Participants will work together to share opinions and experiences, to ask questions and prepare for the ways of working online to support effective collaboration and well-being. The seminar comprises seven phases: **1. Introduction to the project and the framework** **2. Introduction to the methodology** **3. Introduction to the assessment methodology** **4. The role of the facilitator** **5. Overview of sprint content** **6. Detail of reflection, evaluation and recognition seminar** **7. Reflection assessment and portfolio**
GROUP SIZE	Any size – groups can be organised by
TIME	4-5 hours

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RESOURCES AND TOOLS REQUIRED	Online: Zoom/Teams/Google meet, P1_2BDIGITAL INTRODUCTION PLAYLIST.pptx Jamboard Online energisers
PREPARATION	Trainer introduces the activity overview and purpose, i.e. to introduce teachers to the project, framework and method The seminar comprises seven phases: **1. Introduction to the project and the framework** **2. Introduction to the methodology** **3. Introduction to the assessment methodology** **4. The role of the facilitator** **5. Overview of sprint content** **6. Detail of reflection, evaluation and recognition seminar** **7. Reflection assessment and portfolio**
IMPLEMENTATION	**1. Introduction to the project and the framework** P1_2BDIGITAL INTRODUCTION PLAYLIST.pptx **2. Introduction to the methodology** P2-2BDIGITAL INTRODUCTION TO METHODOLOGY.pptx **Teacher exercises:** • Complete self-assessment and set goals • Complete group ikigai • Create success criteria for the training experience • Identify priorities for behaviour and interaction when working online in groups • Complete personality questionnaire • Identify businesses working with SDGs • Complete business canvas

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	• Create success criteria for digital social enterprise **3. Introduction to the assessment methodology** P3-2BDIGITAL INTRODUCTION TO ASSESSMENT METHODOLOGY .pptx
ROLE OF THE TEACHER AS A FACILITATOR	**4. The role of the facilitator** Exercise in which trainees translate how not to examples into positive tips Facilitation exercise - creating tips
ASSESSMENT	**5. Overview of sprint content** Overview of all the sprints and the Reflection and Recognition seminar. **6. Detail of reflection, evaluation and recognition seminar** **Teacher exercises:** • Complete a journeyfolio for training experience • Complete 2 star and wish board Claim a badge **7. Reflection assessment and portfolio**

SPRINT 1. ICEBREAKER SELF AWARENESS - GETTING TO KNOW US!

OBJECTIVES	Task based objectives: • to identify personal competence in a digital environment • to relate competence to holistic life experiences • to understand recognise and accommodate diverse competence, interests and needs within a group • to reflect and evaluate competence development through giving and receiving feedback
OVERVIEW	This session aims to introduce the participants to each other and the digital Ikigai model to further reflect on their digital interests, talents, motivations and values towards learning, working and living in an online world. Participants will work together to share opinions and experiences, to understand themselves,

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	and each other, more clearly and identify ways of working online to support effective collaboration and well-being. The sprint comprises seven phases: **1. Competence – self analysis** **2. Set individual goals for activity** **3. Individual Ikigai** **4. Building a team – completing a group Ikigai** **5. Group pitch – presenting group identity** **6. Creating rules for online learning and working** **7. Reflection assessment and portfolio**
GROUP SIZE	Any size – groups can be organised by
TIME	2 – 3 hours
RESOURCES AND TOOLS REQUIRED	Online: Zoom/Teams/Google meet, Ikigai survey Ikigai self reflection Ikigai Mural Group Ikigai template Journey folios (create one per student)
PREPARATION	Trainer introduces the activity overview and purpose, checking that all participants can access and use the digital tools. **1. Set individual goals for activity** Competence – self analysis: you must have created an account and a group of students. You should have sent them the questionnaire in advance. 2. Set individual goals for activity Each participant must complete diagnostic and identify their top 5 strengths in digital environments using the framework as relevant to their area of study or learning objectives. Individuals identify 1-3 goals to focus upon in the first sprint.

IMPLEMENTATION
3. Individual Ikigai

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The trainer explains the digital ikigai concept. Following self assessment students have the opportunity to reflect on their results and map their competences to an individual Ikigai model, clarifying their competence goals and priorities.

Ikigai self reflection

Pair - Trainer puts learners into small groups of 4-5 (or larger depending on size of whole group).

Trainer explains that each group must create a group identity and profile to introduce themselves to the rest of the class. The whole group will identify success criteria for the group identity and introduction.

Each group collates the 5 top strengths of group members, as shown by diagnostic. The group discuss their findings from the self-assessment and complete a group ikigai profile, mapping their individual competences to the different Ikigai segments to create a group profile.

4. Building a team – completing a group Ikigai

5. Group pitch – presenting group identity

Whole group discussion about what makes a good introduction presentation to create success criteria.

In order to introduce their group to other participants, each group creates a 5 minute presentation to share their Ikigai group profile. The group reflects on the detail of the group Ikigai profile to create a name, a logo/image, a theme song, mission statement and description of the group's passion, mission, vocation and potential profession. Each group presents their group profile.

6. Creating rules for online learning and working

Trainer asks group to reflect on the experience of learning online in this activity.

Ask the groups to reflect on the following questions:

What did you enjoy and find easy when working in a group online?

What didn't you enjoy and find difficult when working in a group online?

What made it easy?

What made it challenging?

What have you learned?

What issues and challenges people can experience online relating to online communication and collaboration (behavioural not technical). Learners each identify 5 rules for positive behaviours to support and promote learning and wellbeing when learning and working online, which help to address identified challenges.

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Learners are then put in pairs to share individual rules and negotiate and agree 5 rules.

Whole group comes together to share and agree rules, including how many there should be.

Rules are then put into a digital form as a contract or set of expectations for learning and working online.

Groups need to agree to the penalty if someone breaks the rules.

ASSESSMENT

7. Reflection assessment and portfolio

Develop shared success criteria to support evaluation of the task and clarify requirements of the task

Students discuss and agree success criteria for the task. Success criteria set out what a good outcome will include and be like. The discussion to identify and agree criteria clarifies the requirements of the task for students and promotes student investment in the task as they contribute to shaping it, in ways which are relevant engaging and level and age appropriate to their group. Success criteria help students know what success looks like. When students know this, they are more likely to plan and predict, set goals, and acquire a stronger sense of how to judge their own progress. Success criteria also provides students with an opportunity to assess their own learning. John Hattie Learning Intentions & Success Criteria

Individual reflection linked to competences

(Journal voice note reflecting on specifics of the task) Learner completes online learning journal reflecting on the differences between group Ikigai and individual results, including which competences they would like to develop further (were goals met or not).

In a scrum individual learners identify 1-3 competences that they developed during the learning activities and 1-3 goals i.e., competences they want to develop in the next sprint inviting feedback from teammates.

Team reflection linked to task

Individuals share what they feel the whole group did well in Sprint 1 and identify one way in which the team can improve in the Sprint 2 (using success criteria). Peer assessment is reasonable as follows:

Through a group discussion in Microsoft Teams or Zoom breakout rooms. One by one each

student gets feedback from groupmates on their overall performance:

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- what he/she managed to do well in that sprint;
- what they recommend paying attention to in the forthcoming sprints related to the digital competences planned for developing.

Competence reflection assessment and portfolio

Students review evidence from the task to identify and evaluate the competence goals they developed, selecting evidence to include in an online digital portfolio.

This way the competence portfolio has evidence from competence development, individual reflection and peer assessment.

INSPIRATION


SPRINT 2. TEAM ROLES – THE FACES OF INNOVATION

OBJECTIVES	Task based objectives: • to identify your/ learners' personality traits relevant to competence development • to explore different roles within a team • to plan a project allocating roles within a team based on strengths and interests • to continue to review and evidence competence development in relation to personal targets, responding to feedback, to identify next steps and competence improvement goals
OVERVIEW	What are the different roles learners can take when working in a team? What opportunities exist for individual team members to work to their strengths?

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	In this part, you will help your students complete the Digital Lifestyle questionnaire. Then, share their results with the rest of their team/group/class. By doing this, you will be able to allocate roles to them based on their individual strengths Using a practice example learners develop a plan identifying who needs to do what by when, aiming to allocate tasks in line with assessment findings and strengths, also providing a rationale for decision making around task allocation This sprint comprises six phases: 1. **Set learning goals, giving and receiving feedback** 2. **Complete questionnaire** 3. **Discuss findings** 4. **Project planning exercise** 5. **Present findings** 6. **Reflection assessment and portfolio**
GROUP SIZE	Any size – groups can be organised by
TIME	2 – 3 hours
RESOURCES AND TOOLS REQUIRED	Online: Zoom/Teams/Google meet, Digital lifestyle survey what is your digital lifestyle? , **Journeyfolios** Jamboard Online form to create contract Trello, Asana, for project planning
PREPARATION	Trainer introduces the activity overview and purpose: to identify individual strengths and how to best exploit these strengths when working in a team. The whole group identify success criteria for effective group planning and management. There are many videos and alternative surveys available online explaining Digital Behaviour lifestyles and preferences online. We have selected this one: what is your digital lifestyle? And other two good options are: https://www.srl-o.com/ https://www.qzzr.com/widget/quiz/fi9xdWl6emVzLzQ0MTU3OA

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IMPLEMENTATION

1. **Set individual goals for activity**

In a group scrum learners share 1-3 competences that they aim to develop during the task, inviting feedback from peers on how to improve the competence

Each group reminds themselves of the team goal identified at the end of Sprint 1 clarifying what steps the team might need to take to develop/practise/achieve this goal.

2. **Complete questionnaire**

Learners complete the Digital Lifestyle questionnaire to identify their "type".

3. Discuss findings

Learners share and discuss their results in their groups answering the questions:

- what traits was I happy about?
- what was I surprised about?
- what sorts of tasks do I enjoy and find easy?
- What sorts of tasks do I not enjoy and find difficult?

4.Project planning exercise

Reflection assessment and portfolio

Students collate a list of 5 potential projects, which link to their passions and missions identified in the Ikigai. Ensure that the whole group would find the chosen project interesting, engaging, relevant (e.g. organise an online quiz, organise an online concert to showcase local talent, organise an online seasonal market for local crafters, organise an online computer games competition) link this to their interests and passions linked to social solution.

Each group selects a project and creates a Who and Do plan for the project. The plan must include what needs to be done and by whom. The group must aim to allocate tasks according to the strengths and types identified in the questionnaire. The group must create a promotional flyer and functioning online registration link for their event.

It is possible that groups will contain members with similar skills or groups may not contain the skills and traits required of tasks as they perceive it. This situation reflects real life and learners must be encouraged to identify how they will support each other to overcome these challenges.

Suggested online tools to use for project planning:

- Clickup
- Trello
- Asana

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5.Present findings

Each group then presents their planning and task allocation to the whole class outlining the reasoning behind their decision making.

ASSESSMENT

6.Reflection assessment and portfolio

Develop shared success criteria to support evaluation of the task and clarify requirements of the task

Students discuss and agree success criteria for the task. Success criteria set out what a good outcome will include and be like. The discussion to identify and agree criteria clarifies the requirements of the task for students and promotes student investment in the task as they contribute to shaping it, in ways which are relevant engaging and level and age appropriate to their group. John Hattie Learning Intentions & Success Criteria

Individual reflection linked to competences

(Journal voice note reflecting on specifics of the task) Learner completes online learning journal reflecting on the group roles and their allocated role, identifying which competences they would like to develop further (were goals met or not).

Team reflection linked to task

Individuals share what they feel the whole group did well in Sprint 2 and identify one way in which the team can improve in the Sprint 3 (using success criteria). Peer assessment is reasonable as follows:

Through a group discussion in Microsoft Teams or Zoom breakout rooms. One by one each

student gets feedback from groupmates on their overall performance:

- what he/she managed to do well in that sprint;
- what they recommend paying attention to in the forthcoming sprints related to the digital competences planned for developing.

Competence reflection assessment and portfolio

Students review evidence from the task to identify and evaluate the competence goals they developed, selecting evidence to include in an online digital portfolio.

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This way the competence portfolio has evidence from competence development, individual reflection and peer assessment.

SPRINT 3: OUR HIVE MIND.

OBJECTIVES	Task based objectives: • to identify user needs in a digital environment • to identify and evaluate solutions to meet those needs • to recognise how social enterprise addresses SDGs • to obtain and evaluate feedback to iterate solution development • to reflect and evaluate competence development through giving and receiving feedback
OVERVIEW	Which social problem is the most interesting and important idea for our group to work on? How can we solve the problem? Who is the target group for whom we are solving the problem? are there any similar solutions we can learn from? What are existing social enterprises doing to address SDG challenges? What is the new thing in our solution? What feedback have we received from the target group? Learners identify and analyse meaningful problems and try to elaborate solutions, developing options and evaluating options in relation to the need/problem/ target group This sprint comprises seven phases: 1. **Set learning goals, giving and receiving feedback** 2. **Flipped playlist SDGs reviewing case studies of good social enterprises** 3. **Problem identification - Brainstorm needs/issues in the digital environment** 4. **Think, pair, share** 5. **Group options appraisal** 6. **Group presentation** 7. **Reflection assessment portfolio**
GROUP SIZE	Any size – groups can be organised by
TIME	2 – 3 hours

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RESOURCES AND TOOLS REQUIRED	Online: Zoom/Teams/Google meet, **Journeyfolios** Brainstorming tools: jamboard; miro, mural. Voting online tools: pollunit; menti
PREPARATION	Trainer introduces the activity overview and purpose, i.e. to generate multiple solutions to global issues as set out in SDGs, linking individual and group digital priorities and strengths to specific digital problems of interest to the group. The whole group identify success criteria for effective solution development. This is the opportunity for the group to clarify the learning outcomes for this activity which is to generate multiple solutions to a problem or issue which could have a digital solution. Therefore, the success criteria needs to emphasise ways of working to support brainstorming and the need for many ideas. **GOAL 6: CLEAN WATER AND SANITATION** There are many resources available online illustrating social enterprise and SDGs which can be adapted to specific audiences. **1. Set learning goals, giving and receiving feedback** In a group scrum learners share 1-3 competences that they aim to develop during the task, inviting feedback from peers on how to improve the competence Each group reminds themselves of the team goal identified at the end of Sprint 2 clarifying what steps the team might need to take to develop/practise/achieve this goal **2. Flipped playlist SDGs reviewing case studies of good social enterprises: Complete learning on social enterprise and SDGs** Learners complete learning to develop knowledge and understanding of SDGs and social enterprise

IMPLEMENTATION
3. Problem identification - Brainstorm needs/issues in the digital environment Whole group brainstorms local issues and problems linked to results from group Ikigai (or questions relevant to course learning) e.g. space to play, gender gap in local political representation, availability of healthy affordable food for children, overpopulation of cats. **4.Think, pair, share**

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Students are put into groups and individually think of 5 issues that they most care about/ questions that they want to answer. This can be the same group if team goals are to be developed over the whole cycle of sprints or can be a different grouping to challenges students to work effectively with the wider class group.
Teacher puts learners into pairs to agree a list of 5 they would like to solve.

5.Group options appraisal
1. Students decide which problem they want to work on.
2. They generate and elaborate diverse creative digital options/ solutions, clarifying who will be the target group/ potential users.
3. They compare their solutions with the existing ones, conducting a review of the market, deciding how to create novelty and/or stand out (unique selling point)
4.They communicate their 2 preferred appraisals, outlining rationale for choice, with the whole group/potential users to get their feedback and evaluation of the solution to help the group to inform decision making and selection of one idea/solution to take forward.

6.Group presentation- Final decision
Each group creates a digital poll to invite votes from the whole group for their preferred options to inform final decision making and choice of best option/course of action.

ASSESSMENT

7.Reflection assessment portfolio
Develop shared success criteria to support evaluation of the task and clarify requirements of the task
Students discuss and agree success criteria for the task. Success criteria set out what a good outcome will include and be like. The discussion to identify and agree criteria clarifies the requirements of the task for students and promotes student investment in the task as they contribute to shaping it, in ways which are relevant engaging and level and age appropriate to their group. John Hattie Learning Intentions & Success Criteria

Individual reflection linked to competences

(journal voice note reflecting on specifics of the task) Learner completes online learning journal reflecting on the group solutions, presentation and decision making, identifying which competences they would like to develop further (were goals met or not).

Team reflection linked to task.

Individuals share what they feel the whole group did well in Sprint 3 and identify one way in which the team can improve in the Sprint 4 (using success criteria). Peer assessment is reasonable as follows:

Through a group discussion in Microsoft Teams or Zoom breakout rooms. One by one each

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student gets feedback from groupmates on their overall performance:

- what he/she managed to do well in that sprint;
- what they recommend paying attention to in the forthcoming sprints related to the digital competences planned for developing.

Competence reflection assessment and portfolio

Students review evidence from the task to identify and evaluate the competence goals they developed, selecting evidence to include in an online digital portfolio.

This way the competence portfolio has evidence from competence development, individual reflection and peer assessment.

EXTRA RESOURCES NEEDED IN THIS SPRINT

Playlist for SDGs or links to existing youtube videos

· https://worldslargestlesson.globalgoals.org/

· https://go-goals.org/

· https://www.un.org/sustainabledevelopment/takeaction/

· https://empatico.org/

· https://www.globalgoals.org/

Different brainstorming tools: mural jamboard

· Minecraft, Kahoot! & Quizziz to increase student engagement by tapping into their gaming mind via Game-Based Learning & Gamification.

· OneNote, Wakelet & Flipgrid for asynchronous collaboration within the classroom & indeed beyond - across the World!

· Microsoft Teams & Skype in the Classroom for synchronous learning.

· Flipgrid for Student Choice & Voice - to develop Student Agency.

· Microsoft PowerPoint with Recording, Sway, Moviemaker, Video Editor, Paint 3D & the Adobe Creative Cloud led by Adobe Spark to nurture creative expression.

Templates for options appraisal

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This is an opportunity for students to create a template for themselves. The template must include 1-5 options, with a list of advantages and disadvantages for each option and an overall recommendation with some conclusions.

SPRINT 4: HACKATHON. DIGITAL SOCIAL ENTERPISE.

OBJECTIVES	Task based objectives: • to identify user needs in a digital environment • to identify and evaluate solutions to meet those needs • to recognise how social enterprise addresses SDGs • to obtain and evaluate feedback to iterate solution development • to reflect and evaluate competence development through giving and receiving feedback
OVERVIEW	What is a hackathon? What digital solution could we create to add or create value? is it realisable? What tools materials means are needed for the realisation? What changes do we need to make in response to feedback of potential users? Whole group reflects on SDGs and brainstorms digital solutions activities/projects that could address an issue or add value, selecting one idea to explore and plan in more detail, each group selects one issue/need to work on completing a business canvas. **This sprint has eight phases:** **1. Set learning goals, giving and receiving feedback** **2. Introduction to social enterprises and hackathons** **3. Group selects one issue/need to resolve, outlining ideas** **4. Develop an empathy map to clarify the needs to be met** **5. Group completes business canvas for social enterprise idea** **6. Group presents idea for feedback** **7. Share survey for feedback** **8. Reflection assessment portfolio**
GROUP SIZE	Any size – groups can be organised by

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TIME	2 – 3 hours
RESOURCES AND TOOLS REQUIRED	Online: Zoom/Teams/Google meet, Journeyfolios Canvanizer Mural for empathy map
PREPARATION	Trainer introduces the activity overview and purpose, i.e. to generate multiple solutions to global issues as set out in SDGs, linking individual and group digital priorities and strengths to specific digital problems of interest to the group. The whole group identify success criteria for effective solution development. This is the opportunity for the group to clarify the learning outcomes for this activity which is to generate multiple solutions to a problem or issue which could have a digital solution. Therefore, the success criteria needs to emphasize ways of working to support brainstorming and the need for many ideas. There are many resources available online illustrating social enterprise and SDGs which can be adapted to specific audiences. **1.Set learning goals, giving and receiving feedback** In a group scrum learners share 1-3 competences that they aim to develop during the task, inviting feedback from peers on how to improve the competence Each group reminds themselves of the team goal identified at the end of Sprint 3 clarifying what steps the team might need to take to develop/practise/achieve this goal **2. Introduction to social enterprise and hackathons** Teacher shares examples of entrepreneurs and innovative social enterprises, linking them to previous learning on SDGs. Teacher draws focus to the competences and strengths required of entrepreneurs, highlighting how these competences have value for learning and work. Teacher also explains the hackathon process sharing an example to illustrate, also explaining the relevance of the method to the workplace. The hackathon ethos calls for a fast paced, timed and creative process drawing on contributions from all participants to co-create value. Share examples and ask students to identify which competencies they can see the social entrepreneurs demonstrate through their enterprise. **Transform ART - Social innovation project** **Refugee Friendly - Social innovation project**

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	GREENSIDERS - English

IMPLEMENTATION

3a. Research and identify needs/issues in the digital environment (If you are using this sprint as a stand-alone session you will need to complete this step. If you have already identified issues, you can revisit the best of these.)

Whole group discussion to identify social issues and digital challenges or that could be resolved digitally. (e.g., loneliness, fraud, disinformation, bullying, buying and selling)

3b. Group selects one issue/need to resolve, outlining ideas

Students work in groups to select one issue and in their group brainstorm ideas to resolve it. Group then considers ideas to select one to develop further.

4. Develop an empathy map to clarify the needs to be met

Students complete the empathy map template to refine their chosen idea in line with intended target user needs.

An online template through mural or similar digital resources is recommended.

5. Group completes business canvas for social enterprise idea

Group develops idea for social enterprise, using the Social Business Model Canvas template, identifying the target market, vision and mission statements, resources required, etc.

Digital options through canvanizer and mural are recommended.

6. Group presents idea for feedback

Group presents their completed business canvas in the form of a pitch and the whole group is invited to ask questions about the product.

7. Share survey for feedback

Students create and share a short survey to gather and collate feedback to support easy analysis.

They design the survey through retrotool, mentimeeter or other similar tools.

ASSESSMENT

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8.Reflection assessment portfolio

Develop shared success criteria to support evaluation of the task and clarify requirements of the task

Students discuss and agree success criteria for the task. Success criteria set out what a good outcome will include and be like. The discussion to identify and agree criteria clarifies the requirements of the task for students and promotes student investment in the task as they contribute to shaping it, in ways which are relevant engaging and level and age appropriate to their group. John Hattie Learning Intentions & Success Criteria

Individual reflection linked to competences

(journal voice note reflecting on specifics of the task) Learner completes online learning journal reflecting on the group solutions, presentation and decision making, identifying which competences they would like to develop further (were goals met or not).

Team reflection linked to task.

Individuals share what they feel the whole group did well in Sprint 4 and identify one way in which the team can improve in the Sprint 5 (using success criteria). Peer assessment is reasonable as follows:

Through a group discussion in Microsoft Teams or Zoom breakout rooms. One by one each

student gets feedback from groupmates on their overall performance:

- what he/she managed to do well in that sprint;
- what they recommend paying attention to in the forthcoming sprints related to the digital competences planned for developing.

Competence reflection assessment and portfolio

Students review evidence from the task to identify and evaluate the competence goals they developed, selecting evidence to include in an online digital portfolio.

This way the competence portfolio has evidence from competence development, individual reflection and peer assessment.

EXTRA RESOURCES NEEDED IN THIS SPRINT

Examples of good practice in social enterprises and hackathons

Examples of innovative social enterprises

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https://www.playeurope-project.eu/manual-of-success-stories/

Examples of hackathons
-A list of hackathons, past and future, in order to access their findings and contribute to the development of new responses to tackle the issues related to COVID-19.
https://joinup.ec.europa.eu/collection/digital-response-covid-19/hackathons-and-events#Hackathons

-CitizensHack2022 is a hackathon event organised by UltraHack and supported by the European Commission. This hackathon meant to increase European citizens' participation in tackling social challenges affecting their city or neighborhood.
https://ultrahack.org/citizenshack-2022

Links to evidence of issues and needs in digital resources

Online editable business canvas
Social Business Model Canvas on MURAL, click on the link here:

https://app.mural.co/template/612e1574-b457-4d61-89f1-142d7ebad205/8e3ff679-5886-4cc4-838e-afba5218de4c

(https://socialbusinessmodelcanvas.swarthmore.edu/)

SPRINT 5: ITERATING AND IMPLEMENTING – PROTOTYPING AND PITCHING.

OBJECTIVES	Task based objectives: • to use feedback to improve an idea/solution • to develop understanding of key features of an effective pitch • to explore different digital methods to support decision making • to identify refined success criteria for a digital social enterprise
OVERVIEW	How can we improve the idea value created? How do you like our solution? Which idea is the best?

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	Students iterate their social enterprise ideas in line with feedback received and then present their improved ideas showing how their ideas could be put into practice This sprint has six phases: 1. **Set learning goals, giving and receiving feedback** 2. **In small groups review feedback and improve business idea** 3. **Group presents updated ideas including implementation plan** 4. **Whole group creates updated success criteria for digital social enterprise** 5. **Whole group vote for best idea** 6. **Reflection assessment portfolio**
GROUP SIZE	Any size – groups can be organised by
TIME	2 – 3 hours
RESOURCES AND TOOLS REQUIRED	Online: Zoom/Teams/Google meet, Journeyfolios Digital prototyping tool Voting online tools: pollunit; menti
PREPARATION	Trainer introduces the activity overview and purpose, i.e. to review feedback received and amend their idea, service or product in line with the feedback, using the updated concept to plan next steps for implementation and success criteria for the project. The whole group identify success criteria for the digital social enterprise **1. Set learning goals, giving and receiving feedback** In a group scrum learners share 1-3 competences that they aim to develop during the task, inviting feedback from peers on how to improve the competence Each group reminds themselves of the team goal identified at the end of Sprint 3 clarifying what steps the team might need to take to develop/practise/achieve this goal

IMPLEMENTATION
2. In small groups review feedback and improve business idea

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Students review feedback received in previous sprint and amend their product/service to improve it.
Students create a digital prototype or mock up to use in their pitch.
They are encouraged to use different digital resources for their prototype, such as https://uizard.io/es/ or https://mockitt.wondershare.com/ where they can get free trials.

3.Group presents updated ideas including implementation
Students research the internet to generate success criteria for a pitch.
Using these criteria each group develops a 3-4 minute presentation to pitch their digital social enterprise idea to the whole group.

The Perfect Elevator Pitch - Best Examples and Templates

4.Whole group creates updated success criteria for digital social enterprise
Teacher explains that there is to be a series of awards for the best businesses. Whole group brainstorms potential categories for different awards and whole group votes to choose a small number of awards, so that each small group can design one award, i.e. four groups will design four awards.

Each group is allocated an award category and must design 4 criteria to help them to select the winning idea in their category.
Each group must create a voting poll so that the whole group votes for each award category. Each group then holds a vote and presents the award to winning groups.

5.Whole group votes for best idea
The whole group then identifies the criteria to support a vote on the best idea overall. Groups make presentations of their ideas to the whole class (using their canva or their prototype). They share opinions on the further development and implementation of the idea.

ASSESSMENT

6. Reflection assessment portfolio
Develop shared success criteria to support evaluation of the task and clarify requirements of the task

Students discuss and agree success criteria for the task. Success criteria set out what a good outcome will include and be like. The discussion to identify and agree criteria clarifies the requirements of the task for students and promotes student investment in the task as they contribute to shaping it, in ways which are relevant engaging and level and age appropriate to their group. John Hattie Learning Intentions & Success Criteria

Individual reflection linked to competences

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(journal voice note reflecting on specifics of the task) Learner completes online learning journal reflecting on the group solutions, presentation and decision making, identifying which competences they would like to develop further (were goals met or not).

Team reflection linked to task.

Individuals share what they feel the whole group did well in Sprint 5 (using success criteria). Peer assessment is reasonable as follows:

Through a group discussion in Microsoft Teams or Zoom breakout rooms. One by one each student gets feedback from groupmates on their overall performance:

- what he/she managed to do well in that sprint;
- what they recommend paying attention to in the forthcoming sprints related to the digital competences planned for developing.

Competence reflection assessment and portfolio

Students review evidence from the task to identify and evaluate the competence goals they developed, selecting evidence to include in an online digital portfolio.

This way the competence portfolio has evidence from competence development, individual reflection and peer assessment.

REFLECTION AND RECOGNITION SEMINAR.

OBJECTIVES	Task based objectives: • Recognise and evidence learning gained through training methodology • Celebrate progress by sharing journey folio • Award badges
OVERVIEW	What have we learned? What progress have we made in developing our competence? What evidence have we collected? What are we going to do next? Students reflect on the training experience, selecting and collating additional evidence of competence development, present their and receive a badge. This seminar has four phases:

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	1. Team progress presentations **2. Individual learner progress and portfolio presentation** **3. Two stars and a wish** **4. Badge award**
GROUP SIZE	Any size – groups can be organised by
TIME	2 – 3 hours
RESOURCES AND TOOLS REQUIRED	Online: Zoom/Teams/Google meet, Journeyfolios
PREPARATION	Trainer introduces the activity overview and purpose, i.e. to present, evidence and celebrate learning and competence development achieved through training experience. Each group prepares a presentation of progress against goals set in groups Each individual completes their journeyfolio to present to whole group.

IMPLEMENTATION

1. Team progress presentations

Each group presents their learning and progress, sharing goals and team reflections, and receives feedback from whole group in a whole group discussion.

2. Individual learner progress and portfolio presentation

Individual learners present their journeyfolios (including slides for each sprint with goals and which were met) highlighting what they have learned and which competences they have developed.

3. Two stars and a wish

All students contribute to the design of a poster on a shared digital page/jamboard on which learners post two things they will take away from this learning and one thing they will continue to develop.

ASSESSMENT

4. Badge award

Students claim a badge from open badge factory. Students then invite feedback and endorsements

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from the whole group. Students share their badges and link to journeyfolio
Map of practices gogocarto.fr

TEACHERS' GUIDANCE

Here you will find some additional tips and resources that you might find useful for the implementation of each sprint.

SPRINT 1 GUIDANCE

1. Putting learners into groups - why bother?

1. Support

When students work together in groups toward common goals of learning they can provide encouragement to each other to keep motivated toward the goals. It can be a positive and enjoyable experience.

2. Commitment

As each member of a study group or team commits to participate fully in the group, students tend to stay up-to-date with tasks. Being part of a study group learning team helps to clarify tasks and sustain motivation.

3. Discussions and Communication

Study groups can help learners develop as a student, person, and professional. Study groups encourage members to think creatively and build strong communication skills which also help in refining understanding of the material. It has been proven that those who participate in study groups feel more confident and comfortable about reaching their learning goals. Overall, most professional careers require collaboration with colleagues on projects, so study groups are excellent practice in preparation for the work world.

4. "Two heads are better than one."

Students tend to learn faster working within a group versus working alone. When students work in groups, they have the opportunity to explain concepts, review material, exchange ideas, and disagree/reason with one another about why one person's answer differs from another. Since everyone has individual talents and unique insights, group members can learn from each other. Group members can also teach confusing concepts they understand to other group members. Working in groups makes it possible to focus on more concepts since multiple people can review more material than just one. One or more group members are likely to understand something others do not. They may bring up ideas others have not considered.

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5. Learn New Study Habits/Skills

There are always ways to enhance studying methods/techniques in study skills. Joining a study group will provide learners with the opportunity to observe a wide variety of study methods and incorporate them into their learning toolkit.

6. Teaching concepts to the other group members

Teaching/explaining information and concepts to the other group members will help learners to reinforce their mastery of the information and concepts.

8. Interaction – enjoyable learning

Studying with a group is a great way to liven up sessions. It can be very monotonous and draining to spend long hours alone somewhere and is a particular risk when learning and working online. Joining a study group and studying in a group environment makes learning much more fulfilling and enjoyable.

9. Different Perspectives

Each group member has different qualities/ideas to offer to the study group. In groups, learners need to receive and accommodate various viewpoints which can assist in helping them to develop their own views. Listening and asking questions will provide more food for thought while developing critical thinking skills.

10. Other Benefits

Some learners may be reluctant to ask a question in class. They often find it easier to do so in a small study group and eventually online. Listening and discussing add a strong auditory dimension to a learning experience.

2) Different ways of grouping learners

Random - Group students randomly by pulling sticks or using an app to pick. This approach is good when you want groups of equal size and want students to branch out a little bit beyond their peers.

Homogeneous - Group students based on similar academic achievement levels. For instance, the same assessment profiles or competence goals.

Heterogeneous - Group students based on differences. For instance, to balance confidence or leadership or support needs students who are independent and dependent. It also helps to take note of who butts heads and who works well together.

Interest - Group students based on their similar interests. Students are typically more motivated when they share common interests in a topic.

Learning Style - Group students based on their multiple intelligences or learning preferences. If they are linguistic, put them with other linguistic learners.

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Knowledge of a Topic - Students with likeness in knowledge can share information with one another which confirms their understanding and builds self-confidence.

Skill or Strategy - Grouping students like their skill or strategy can fill in any gaps or enrich students who need it most.

And finally…

Student Choice - Let the students group themselves. Choice is engaging and builds responsibility and independence.

3) WHAT IS IKIGAI AND HOW TO USE IT

Ikigai is a Japanese term that embodies the idea of happiness in living. Essentially, ikigai is the reason why you get up in the morning. It is composed of two words: iki, which means life and gai, which describes value or worth. In this project we use Ikigai as a tool for learners to reflect upon and consider their strengths and motivations as a way of better engaging them purposefully and meaningfully. Mapping their competences to the different segments of the model will help students to better understand their strengths, potential, motivation and aspirations in relation to their whole self and everyday lives.

In this case, we are working on a digital version that allows students to get a better understanding of their digital-self.

Team Identity creation

In the group Ikigai exercise the group is asked to select group member strengths identified through the self assessment. Each group member will have identified 5 strengths, which they can contribute to the group profile. Each group member, in discussion with other group members, contributes their strengths to the Ikigai group profile.

Each group needs to create each of the following for their group - a name, a logo/image, a theme song (i.e. a pop song that they feel represents or energises them), a mission statement.

Mission statement explanation and examples

A mission statement has three components, which include the purpose, values, and goals of a group, organisation or company. A mission statement is a concise explanation of the organisation's reason for existence. It describes the organisation's purpose and its overall intention. The mission statement supports the vision and serves to communicate purpose and direction to employees, customers, vendors and other stakeholders.

1. Starbucks - To inspire and nurture the human spirit – one person, one cup and one neighbourhood at a time.

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2. Nike - To bring inspiration and innovation to every athlete* in the world. *If you have a body, you are an athlete.

5. Tesla - To accelerate the world's transition to sustainable energy.

6. IKEA - To create a better everyday life for the many people

7. Sony - To be a company that inspires and fulfills your curiosity.

8. Microsoft - To enable people and businesses throughout the world to realize their full potential

9. Google - To organize the world's information and make it universally accessible and useful.

10. Adobe - To move the web forward and give web designers and developers the best tools and services in the world

How to Write a Mission Statement

Here is a step-by-step process on how to get started writing a mission statement:

- Write a sentence that explains what your group does/is good at, in basic terms.
- List some of your core values.
- Keeping those core values in mind, write a sentence that explains how your groupcompany does what it does/ is good at what it's good at.
- Write a sentence that explains why your group company does what it does/ is good at what it's good at.
- Take a look at the three sentences you've written, and then try to combine and condense those ideas so your mission statement is as straight-to-the-point as possible.

4) What makes a good presentation?

Here are some tips to share with students - it is a good idea to invite students to contribute to or develop this list

1. Show your Passion and Connect with your Audience

2. Focus on your Audience's Needs

3. Keep it Simple: Concentrate on your Core Message

4. Smile and Make Eye Contact with your Audience

5. Use your Voice Effectively

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6. Use your Body Too

7. Relax, Breathe and Enjoy

5) Creating rules for online learning

Behaviour management online - values and priorities

Article "Online Classroom Management: Five Tips for Making the Shift"

How to create an online contract using forms or similar

How to video from Youtube

How to Create a Form with Microsoft Forms

SPRINT 2 GUIDANCE

1) Project planning

Planning projects with the Who Do Game

Object of Play - The objective of this game is to identify stakeholders and clarify goals.

Number of Players: 1–10

Duration of Play: 20–45 minutes

How to Play

Who do you want to do what? Almost any endeavou**r** of substantial impact requires seeking help from others. Developing a WHO + DO list is a simple way to scope out the undertaking.

1. Start with the vision. Write out or visualize the big goal.

2. Create a two-column matrix in an online tool which you can share for all to contribute to and write "WHO" on the left and "DO" on the right.

3. Ask: Who is involved in making this happen? Who is the decision maker? Who has needed resources? Who may be an obstacle? Whose support is needed These individuals or groups are your list of WHOs.

4. The DOs are often harder. For each WHO, ask: What do they need to do, or do differently? What actions will build toward the big goal? Sharpen each WHO in the list until you have a desired and measurable action for each. Given all of the possible WHOs and DOs, which are the most important? Who comes first?

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Strategy

Bias yourself toward action. When brainstorming DOs, there is a tendency to slip into the easier mode of "we just want them to understand." Most often when you want people to understand something, it's because you want them to change something or learn something that they can then "DO." Ask yourself, or the group, "What will happen once they understand?" Don't shortchange what you are really looking for: action.

WhoDo - Gamestorming

2) Giving feedback

For feedback to be effective it must be Specific, Constructive, Positive and Timely. When learners need support and encouragement feedback should balance positive observations with suggestions for improvement. Many educators recommend a 2-1 ratio of positive comments to advice for improvement.

Top tips for peer feedback:

- Ensure that feedback is intended, framed and presented to be supportive and to help the recipient to improve. Teach students how to use body language and tone of voice to reflect this motivation.
- The more frequent and normalised peer reviews become, the better and more comfortable students will be at sharing constructive feedback and the better students will be at receiving it.
- Ask students to prepare their feedback and think about it carefully. Ask students to establish specific points they want to address and draft how they'll share those points. If possible, provide examples and consider offering suggestions for improving the area of focus.
- Not everyone likes to hear constructive feedback in the same way. Some students might enjoy the challenge of learning what skills they can improve from straightforward, constructive criticism, while others might prefer a gentler approach with suggestions and guidance for improvement. Support your students to differentiate how they deliver feedback.
- Aim to promote a "growth mindset". Mindset can have a huge impact on how students process constructive criticism. A "fixed" mindset is one that focuses exclusively on the outcome of an action. If the person fails in their attempt, then the fixed mindset considers the entire endeavour to be a failure. By contrast, a "growth" mindset finds value in the process rather than the outcome. If the person fails in their attempt, the growth mindset focuses on the minor achievements throughout the process and considers how those might be of use in future endeavours.
- Ensure that feedback is manageable. Providing too many ideas for improvement can be overwhelming for students. Choose between one to three feedback examples to share, depending on the peer and the actions needed to improve on the feedback.

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- Teach your students how to display empathy. Receiving feedback can be uncomfortable. Ensure that your students understand how to demonstrate empathy when they are in the position of feedback provider. Encourage students to use that empathy to consider how they might feel and react to mistakes, missteps or other criticisms of their work. Empathy can help students and their peers to have a productive conversation with a positive outcome.

It is also a good idea to allow the feedback recipient to respond to feedback

SPRINT 3 GUIDANCE

1) Flipped learning how and why

The flipped classroom is a pedagogical model that reverses the typical lecture and homework elements of a course. Students view short video lectures or other multimedia content asynchronously before the class session. Then in-class time is devoted to active learning such as discussions, project-based or problem-based assignments, or laboratory exercises. This teaching model allows instructors to guide student learning by answering student questions and applying course concepts during class time. Traditional homework activities are a part of the synchronous or face-to-face class period with the instructor's support.

Flipping the classroom is a response to the idea that class time used to engage students in learning through active learning techniques rather than through delivering lectures alone. It is the process of replacing traditional lectures with more student-centered learning strategies, such as active learning, discussions, problem-based learning, and other forms of group work and peer instruction. Content delivery is moved outside of the classroom, often through videos or pre-class readings.

There is no one formula for flipping a class, as the amount of flipping can vary from course to course and class to class. Here are examples from both ends of the spectrum:

- An instructor integrates a 5-10-minute hands-on learning activity into a class period and consequently, lectures for 5-10 minutes less.
- An instructor designs a course in which the content is delivered entirely through video segments, pre-class reading, and exercises, using class time for group work activities.

Why Flip the Classroom?

- Moving content outside of the classroom allows for more class time to be spent on engaging learning activities such as peer instruction or active learning.
- Interactive teaching techniques, such as the two mentioned above, have been shown to enhance learning (Crouch & Mazur, 2001; Deslauriers, Schelew & Wieman, 2011).

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- With the advent of technology that can more easily facilitate content delivery, such as lecture capture, videos, podcasts, and other online information, there are multiple ways for learners to access knowledge. The lecture is not as essential to content delivery as it once was.
- Students report that they prefer courses that have online components (Dahlstrom, 2012).

Considerations for Flipping the Classroom

Moving learning outside of the class requires students to self-regulate their learning. To support students in doing so, try these techniques:

- Communicate how much time-on-task is necessary for each learning activity.
- Provide a rubric to articulate the expected assignment outcomes and the assessment.
- Encourage students to create a learning plan. This step is more crucial for courses that require a lot of online work.
- Break more significant online assignments up into smaller pieces and create staggered deadlines along the way.
- Incorporate peer feedback. For example, if you require students to post-reading responses, include responses to peers' as part of the assignment.
- Include incentives for completing online or out of class assignments. For example, for reading assignments, require students to do a pre-class quiz on Canvas and have these quizzes be a small part of students' grades. Alternatively, give a quick five-minute quiz at the beginning of a class session and allow students to earn bonus points for correct answers.
- For required pre-class quizzes, Canvas' Prerequisites feature will enable you to provide students with additional information only when they complete a quiz.
- Discuss the expectation you have for students to preview content before class. Instill accountability for pre-class activities by noting that not doing them decreases the value of class session activities for both themselves and the students. Students should be held responsible for not letting themselves or their classmates down. Establishing ground rules can help.

Be aware that your class activities' effectiveness can be influenced by whether or not students have come to class prepared. Think ahead about how you will incentivize students to complete their pre-class assignments. Faculty Focus offers an article with two strategies for getting students to do the reading.

Getting Started with Flipping the Classroom

Start small. Choose one class and one new activity that you would like to try.

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Keep the following questions in mind:

- How can I deliver content to students outside of class in meaningful ways?
- What can students do in class that encourages meaningful learning?

Strategies to use:

- Assign pre-class readings and have students complete a quiz on this reading before class.
- Create videos that explore a topic and require students to watch them before class.
- Integrate exams or some other kind of activity that engages students with the material, such as having students come to class with one or two questions they have about the topic.
- Have students contribute to online discussions by requiring them to find, post, and draw connections to relevant online information.

Learning opportunities:

- Active learning techniques: Allow students to apply concepts in the class where they can ask peers or instructors for feedback and clarification.
- Peer instruction: Students can teach each other by explaining concepts or working on small problems.
- Collaborative Learning: There are several activities students can do to enhance understanding and provide opportunities to apply knowledge.
- Group work: If group work is one of the ways you plan on assessing your students, giving them time to do their activities alleviates the inconvenience of holding meetings outside of class time. This step ultimately leads to fewer participation issues and gives you a chance to check in on how things are going.
- Problem-based learning: Spend class time working on problems that can last for a semester.
- Discussions or debates: Allow students to articulate their thoughts on the spot and to develop their arguments in support of their opinions or claims.

Assessment opportunities:

- Having students engage with working on assignments in class allows you to provide ongoing feedback.
- Students can also provide peer feedback to each other and respond to the feedback they receive. This step encourages dialogue on student work and focuses on the process rather than on the final product. It also ensures that students receive feedback regularly and gives students practice at assessing work.

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https://www.celt.iastate.edu/teaching/teaching-format/blended-learning-and-the-flipped-classroom/

2) Intro to SDGs why and how

What are the Sustainable Development Goals?

The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity.

The 17 SDGs are integrated—they recognize that action in one area will affect outcomes in others, and that development must balance social, economic and environmental sustainability. Countries have committed to prioritize progress for those who're furthest behind. The SDGs are designed to end poverty, hunger, AIDS, and discrimination against women and girls. The creativity, know how, technology and financial resources from all of society is necessary to achieve the SDGs in every context.

Connected like never before, young people want and are already contributing to the resilience of their communities, proposing innovative solutions, driving social progress and inspiring political change. They are also agents of change, mobilising to advance the objectives of sustainable development to improve the health of the planet & the lives of the people.

Why teach SDGs?

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Decade of Action

The global goals we've made progress on -- and the ones we haven't | Michael Green

Accelerating action for SDGs

1. Benefits for Learners:

· The interdisciplinary nature of the SDGs helps learners to establish links between different subjects & skills, which in turn can help them thrive in a rapidly-changing labour market.

· Teaching SDGs motivate & enhance learning across the curriculum, because the topics require creative engagement & are relevant to real world problems.

· Assists learners to get acquainted with the systems used in governance - National & International & the concept of International law.

· Encourages learners to make sense of the local communities in which they live & the diversity of the World around them - to participate & have a voice in matters that affect them.

· Supports the acquisition of core competencies & skill sets, particularly those related to the conduct of research; the development, presentation & response towards informed arguments; nurturing individual agency through student choice & student voice.

· Increases understanding of social science, scientific & mathematical concepts & processes by applying them to real-life contexts & data.

· Develops critical thinking & empowers learners to confidently challenge incorrect or false assertions made by others – for example, 'fake news' in the media.

· Helps learners to see the positives around them & feel empowered as everyone has a role to play in making progress in these Global challenges.

2. Benefits for Educators & Schools:

· Reinforces the importance of diversity inside & outside the school ecosystem.

· Provides a valuable mechanism through joint Global learning initiatives between different grade levels.

· Promotes lifelong learning & a need for everyone to work together - Teacher-Learner collaboration ensures enriched experiences.

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· Provides a unifying thread for schools that want to place Humanity - value systems, human rights & Global competencies at the heart of learning. The broad, mutually supportive & interdependent nature of the SDGs makes them an excellent tool for the development of whole-school curricula.

3. Benefits for Communities & the Wider World:

· Provides an excellent structure for resolving contentious & complex local, National & International issues, particularly those that create a "Glocal" tension.

· Contextualizes local community or business participation programs.

· Exchanging information about SDGs engages & nurtures interrelationships between parents, communities & businesses.

(https://www.etwinz.com/post/the-importance-of-the-sdgs-in-education)

3) Different brainstorming techniques - conditions required for brainstorming

Brainstorms typically have three steps: idea capture, discussion and critique, and selection. The following strategies will help you and your team through all three stages.

1. Brainwriting

In this non-verbal brainstorming method, everyone contributes three ideas that relate to the topic of the brainstorm. Online this can be done using a shared document, jamboard or mural. Allow about four to six minutes for this process. Then everyone passes their ideas to the person on their right (or left, whichever you prefer), who will then build on the ideas, adding bullet points or creative strategies. After another few minutes, everyone will pass the pieces of paper again until they make it all the way round the table. Once the ideas have made it round the circle, the group discusses them and decides which ideas are best to pursue.

This technique can alleviate two of the biggest brainstorm pitfalls— unbalanced conversation and the anchoring effect—by ensuring that everyone has the opportunity to contribute and eliminating the bias towards the first idea.

2. Rapid ideation

In rapid ideation, everyone writes down as many ideas as possible in a set amount of time before any ideas are discussed, critiqued, or fleshed out. For this brainstorming technique, you will need to set (and stick to) a time constraint, otherwise you'll risk losing the sense of urgency.

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This brainstorming exercise can be helpful to avoid the all-too-common scenario when an idea is shot down before it has time to grow, transform, and develop. By allowing everyone to capture their ideas before the critique begins, rapid ideation avoids the inevitable, premature shooting down of ideas. The time constraint can also prevent people from talking themselves out of an idea before they share it with a group—a common brainstorming mishap.

3. Figure storming

In figure storming, the group picks a well-known figure who is not in the room—it could be a boss, a fictional character, or a well-known public figure—and discusses how that person would approach the problem or think about the idea. For example, you might ask: How would Oprah Winfrey approach this problem? It seems like a silly question but putting yourself in someone else's shoes can help you and your team approach the problem in a different way.

Teammates can sometimes be ashamed or hesitant to put forth their creative ideas, but if someone else's name is attached to the ideas—Oprah's, for example—they are more likely to share them. Also, this brainstorming method removes some barriers that usually restrict creative thinking, like budget and time.

4. Eidetic image method

This visualisation-based method recommended by author and psychologist Jaqueline Sussman employs vivid images stored in our minds from all of our life experiences. Begin with intention-setting: Have the group close their eyes and clearly set an intention for what they will create—for example, an innovative smartphone. Each person in the group sets the intention in their mind that they will come up with a new phone design unlike previous ones.

After these intentions are set, you will have everyone close their eyes again and pull forth the first eidetic image: The company's current phone design. Once everyone in the group has that image in their mind, you can all begin building upon that design. Ask the group to picture the current design in their favourite colour or at their individual ideal size. Ask them to add features they wish the current design had originally included. Maybe they'll add a better camera or a larger screen. After everyone has arrived at an image of their ideal phone design in their mind, you will randomly ask a team member to share exactly what their enhanced version looks like. Once they've shared, record that idea. Now have everyone picture that new version of the phone and you can begin layering ideas on top of it. In the end, you can end up with hundreds of new concrete ideas—ranging from the colour to the features to the size.

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This method works best when the goal isn't to reinvent the wheel but rather to enhance it. While the group should not focus on costs, their ideas should remain in the realm of possibility.

6. Round-robin brainstorming

In a round-robin brainstorm, every member of the meeting participates, contributing one idea to the brainstorm. The first rule is that the group has to make it round the whole room at least once before anyone can contribute a second idea or criticise, elaborate on, or discuss any of the ideas. The second rule is that no one can say, 'My idea was already said'. You can come back to that person at the end when they've had more time to think. It's also a good idea to give the team some time to prepare ideas before the brainstorm meeting.

Like rapid ideation, this technique encourages (read: requires) everyone to participate and allows the team members to get all of their ideas out before moving on to the critique phase of the brainstorm.

7. Step-ladder technique

The step-ladder technique, while a bit complex, is a great way to make sure the group isn't heavily influenced by the first few ideas or by the loudest people in the room.

To use the step-ladder technique, a facilitator first introduces the brainstorming topic and then everyone leaves the room except for two people. Those two brainstorm together for a few minutes before a third person comes back into the room. The third person shares some of their ideas, before discussing the ideas that the first two discussed. Individuals return to the room one by one, sharing their ideas before learning about the other ideas that have been discussed. Outside the room, the other teammates can either continue to brainstorm and write down ideas or go back to individual work, but they should not discuss their ideas with anyone until they are inside the room.

If your group is too big, you're better off going with a simpler technique, as the step-ladder technique takes some time.

8. Mind mapping

Sometimes, the first idea shared with the group isn't the right idea, but it sparks three better ideas—that's where mind mapping comes in. In this technique, the group starts with one idea and then draws lines connecting sub-ideas to the first one. Mind mapping is a visual way to approach brainstorms and can be helpful for those who think visually.

9. Starbursting

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Starbursting is a later-stage brainstorming technique that can be implemented when a group has already selected an idea to elaborate upon and potentially execute.

In a starburst brainstorming session, your team will start with an idea or challenge at the centre and then create a six-point star around it. Each point represents a question: who, what, when, where, why, and how. For example, who is this product targeting? When would be a good time to launch it? What is our motivation for creating this product?

Because it focuses on questions rather than answers, starbursting encourages the group to examine an idea from every angle. Presenting an idea in this way frees the person who generated the idea from having to defend it or figure out how to execute it on their own. Instead, the team works on solutions together.

10. Change of scenery

Moving your brainstorm outside to a casual lunch place or even a different floor in your building can help get new ideas flowing. Physical space plays a big part in how employees work, think, and feel. When a team is constantly brainstorming together in the same room, with the same group of people, the brainstorms may feel repetitive and uninspiring. The change of scenery provided by a brand-new space, even for a short period of time, can help people think differently and devise new ideas.

4) Issues and needs in the digital environment

Ideally students will have a discussion to identify what they believe to be the most important issues and needs in the online environment**,** but it is also possible to provide a prompt such as the video or article below.

https://www.techforgood.net/

https://www.oecd.org/digital/ieconomy/protecting-children-online.htm

https://gdc.unicef.org/resource/growing-digital-world-benefits-and-risks

5) How to create solutions

Clarifying what questions need to be answered in students' solutions to the problem: what are we doing, who will be the target group/ potential users, match with objective, etc.

Include explanation on what is this, and how to do it? What is a target group, …

5) Options appraisal

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Options Appraisal is a method to support decision making and to support selection of the best course of action or best idea. Evaluating options makes thinking explicit and enables students to weigh up the pros and cons of suggestions to make informed decisions.

• Once students have gathered lots of potential ideas and solutions to their issue or challenge it is important that they use a sound methodology to justify what they decide to take forward to implementation – Options Appraisal

• Best Practice is for them is to first of all assess different options against their objectives and use scoring/weightings or lists of advantages and disadvantages to take forward options for more detailed consideration

• Once they have identified the solutions which best meet their objectives, these could be assessed in relation to benefits and costs and risk in order for students to make a decision based on evidence

SPRINT 4 GUIDANCE

1) Introduction to social enterprise

Social enterprises are businesses that are changing the world for the better. Like traditional businesses they aim to make a profit but it's what they do with their profits that sets them apart – reinvesting or donating them to create positive social change. Social enterprises are in our communities and on our high streets – from coffee shops and cinemas, to pubs and leisure centres, banks and bus companies.

By selling goods and services in the open market, social enterprises create employment and reinvest their profits back into their business or the local community. This allows them to tackle social problems, improve people's life chances, provide training and employment opportunities for those furthest from the market, support communities and help the environment.

Social enterprises exist in nearly every sector from consumer goods to healthcare, community energy to creative agencies, restaurants to facilities management. Well known examples in the UK include The Big Issue, Change Please and the Eden Project but there are over 100,000 social enterprises throughout the country contributing £60 billion to the UK economy and employing two million people.

They're creating jobs and opportunities for those most marginalised from the workforce, transforming the communities they work in and making the Sustainable Development Goals a reality. It's business for good and when they profit, society profits.

We define social enterprises as businesses that:

- Your business has a clear social or environmental mission that is set out in its governing documents.

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- You are an independent business and earn more than half of your income through trading (or are working towards this)
- You are controlled or owned in the interests of your social mission
- You reinvest or give away at least half your profits or surpluses towards your social purpose
- You are transparent about how you operate and the impact that you have

(https://www.socialenterprise.org.uk/what-is-it-all-about/)

Beneficial outcomes

According to the Social Enterprise Academy, "establishing a social enterprise engages young people in the practical and creative skills required to run a viable business, develops their skills for learning, life and work and enriches their sense of social justice."

Social enterprise school programmes are linked to improved attendance, behaviour, and enthusiasm among students. The resource pack provides links to a number of curriculum and core skill development areas including creativity and leadership, enterprise and communication skills as well as problem solving and team work.

(social_enterprise_classroom_resource.pdf)

2) Introduction to hackathons

A hackathon is an event where people join together for a short amount of time to collaborate on a project. Because the activities are usually short (only 24 hours long or over a weekend), the participants work quickly to complete their tasks. Hackathons are frequently competitive events in which a project must be finished in a short amount of time. The goal of the event is to develop a functioning product by the end of the event.

The term "hackathon" is a combination of the terms "hack" and "marathon," where "hack" refers to experimental programming and not computer security breaching. The word was originally used by OpenBSD on June 4, 1999, in reference to a cryptographic development event conducted in Calgary, when 10 developers joined to avoid legal issues posed by US export limits on cryptographic software. (OpenBSD: Hackathons)

Types of hackathons

Initially, hackathons focused on a software development such as mobile apps, a desktop operating system, web development or video game development.

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Nowadays, a lot of hackathons focus also on social innovation (cause or a purpose), providing solutions to improve the lives of people, the governmental systems and other humanitarian, social and public interest challenges.

A hackathon is an excellent method to introduce students to the project-based and design thinking approach. Hackathons foster creativity, team work and innovation and they're a fantastic opportunity to provide participants exceptional and priceless experiences. (https://www.netscout.com/blog/what-do-students-learn-hackathons)

All you need to know to run an online hackathon
https://www.learnable-europe.eu/how-to-run-an-online-and-blended-hackathon/

3) Issues and needs in the digital environment

Ideally students will have a discussion to identify what they believe to be the most important issues and needs in the online environment but it is also possible to provide a prompt such as the video or article below.

https://www.oecd.org/digital/ieconomy/protecting-children-online.htm
https://gdc.unicef.org/resource/growing-digital-world-benefits-and-risks

4) Introduce business canvas model

The Business Model Canvas is a strategic management template that can be used to create new business models as well as record current ones. It provides a visual chart with blocks indicating a business or a product's value proposition (simple statement that summarizes why a customer would choose your product or service).

Alexander Osterwalder presented the nine "building blocks" of the business model template that became known as the Business Model Canvas in 2005, based on his prior work on business model ontology. (https://web.archive.org/web/20061213141941/http://business-model-design.blogspot.com/2005/11/what-is-business-model.html). Since its publication, additional models for specific niches have been developed, for example specifically for social entreprises.

The Business Model Canvas is offered under a Creative Commons license, can be used without any restrictions and is accessible also in online format so that groups of people can co-create business model features together online. It's a practical tool that encourages creativity, comprehension, debate, and analysis.

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(https://strategyzer.uservoice.com/knowledgebase/articles/506842-business-model-canvas-and-value-proposition-canvas)

How to use the canvas

(https://socialenterpriseinstitute.co/wp-content/uploads/2018/12/Social-Business-Model-Canvas.pdf)

1. Gather your team and discuss your ideas and how you see your social business working
2. Use the Social Business Model Canvas template provided to facilitate the conversation.
3. It is suggested to start with the Market and Value elements (the most important elements)
4. Start filling in the canvas from left to right
5. Take a step back and review the complete idea (make sure every block is linked to the value proposition)

TIPS

-Learn from your competition: Your competitors can teach you a lot. Pick a few competitors and research their business plans. With this information, you'll have a better understanding of what clients want and are prepared to pay for.

-Map/record only important/essential aspects of your social enterprise idea.

-Try to make your idea as clear as possible- even others should understand what they mean

-Allow yourselves between 30 minutes of undisturbed time

Addressing target users needs to validate your business solutions

The first place to start when planning a business solution is with your target users and customers needs.

A successful business will eventually create its goods or services to meet the requirements and difficulties of their customers, so understanding those needs from the start is critical. A useful tool that can help you do that is an Empathy Map.

Why use the Empathy map?

You can use an Empathy Map to summarize your customer's perspective. It includes the customer's thoughts and feelings, as well as their basic senses of sight and hearing, as well as their challenges and benefits. It is quite similar to creating a customer's persona, but an empathy map looks beyond your customers' hobbies, talents, or lifestyle to what they see, feel, and think, giving you a better grasp of what it's like to be them.

Steps on creating an Empathy Map:

1) Interview/talk with your ideal customer
2) Put their input on the Empathy Map
3) Start transferring this information to The Value Proposition in the Business Model Canvas.

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https://www.ashtonmcgill.com/business-model-canvas-series-introducing-empathy-map/

Criteria and questions to evaluate the business canva model

For each of the following questions, rate the business model's performance (0:bad, 10:excellent):

- How difficult/expensive is it for the ideal customer to switch to the competition?
- Can the business model produce recurring revenues?
- Can they earn before they spend?
- How much can they get customers or third parties (volunteers) to do the work for free?
- How much does the business model protect them from the competition?

(https://businessmodelanalyst.com/business-model-assessment/**)**

SPRINT 5 GUIDELINES

1) Prototyping

Though some typical qualities of a successful prototype are that it: Illustrates the real-world functionality of the product (and whether it needs to be fine-tuned). Shows how the product fits and interacts with other pieces or components (and whether design or dimensional adjustments are required)

Prototyping is used for many reasons. The creator may develop one just to see what the end product looks like, or they may need a complete model to test the user experience. The need for the prototype will guide the developer through each of the five stages of prototyping.

#1: Define the vision

At this point in the prototyping process, the developer needs to come up with an overarching vision for their product. This phase may include sketches, but it can also work as a verbal description as long as a few key questions are answered:

· What problem does it solve?

· Who is the key market?

· What other options are available?

· What's the anticipated price point?

· What are the resources and labour needed for creation?

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Answering these questions gives critical clues as to whether the design will be useful and if its demand will be able to justify the cost of creation. This way, the creator can determine if prototyping is even necessary, or if they should reconsider their vision.

#2: Focus on key features

One common mistake of creators is trying to make their prototype identical to the end product. While this is useful when the prototype is for demonstrating value to investors, it's not necessary for most other needs. The creator should single out one or two key features of their product to focus on in their prototype. Less critical issues, like the overall cosmetic look of the product or optional features, are not necessary unless they are the sole reason for the prototyping.

#3: Produce

The actual building of the prototype is the lengthiest part of the process as the creator has to consider all the various options involved.

In some cases, a few different methods are employed in developing the prototype for the best result. In the real world, when time is of the essence, rapid prototyping may be the way to go. For learning purposes, the exploration of the five stages of prototyping can lead to important considerations of feasibility of an idea.

#4: Test and refine

After rolling out the initial prototype, the creator will want to evaluate it, consider update options, and seek out ways to improve the overall process. This may require a few simple tweaks, or it could involve scrapping the whole initial design and starting over from step one. In any case, testing and refining should occur multiple times to ensure the prototype is ready to be unveiled to potential users.

#5: Present

The presentation stage will differ based on the purpose of the prototype. It may include creating multiple models for testing among consumers, sending the design in for patenting, or showing it to potential investors. The presentation stage will help gauge interest.

2) Online voting tools and polls

Polling in the classroom describes a tool that instructors can use to anonymously or semi-anonymously gather information from students. Polls can be both high tech (PollEverywhere, iClicker, Socrative, Participatr) and low tech (having students raise colored pieces of paper or their hands). Instructors can use polls for many different pedagogical reasons such as to ask students about their background knowledge, personal opinions or experiences; to predict the outcome of an experimental demonstration, or to test their understanding of course material. The anonymity of these tools allows students to feel more comfortable participating in classroom discussion and answering honestly in medium to large classes. As such, polls can be utilised as an important formative assessment tool. Formative assessments are used to gauge where students are in their learning at different points during

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a course. These types of assessments also allow instructors to respond more directly and efficiently to student needs.

Polling is a great way to immediately and visually gauge opinions and capture responses to learning epxeriences. They are energising and engaging for students as they can immediately see where their thinking is in relation to others'. There are very many free tools to choose from and ranking through the use of polls and voting can prompt critical thinking.

https://doodle.com/online-voting-tool

https://www.sli.do/ (free version has no more than 3 questions)

https://www.mentimeter.com/signup

https://www.poll-maker.com/

https://www.smartsurvey.co.uk/free-online-polls

3) Create a Poll in google

Creating a new poll is simple:

1. Visit https://surveys.google.com/your-surveys.

2. Click + NEW SURVEY.

3. In step 1 (Write questions), select the appropriate question type(s) and write your question(s). Click CONFIRM.

4. In step 2 (Pick audience), name your survey and select your target audience. Click CONTINUE.

5. In step 3 (Confirm survey), review your survey questions and purchase responses. You also have the option here to adjust the survey frequency. Click BUY NOW or START TEST* if your survey has screening questions.

6. Your survey is sent to our team for review and you receive a confirmation email once it has been started.

7. You receive another email with a link to your results once your survey is completed.

You can start seeing results once your survey is approved and data is processed, which usually happens in a matter of hours.

4) Pitching online

Pitching is the act of presenting an idea to an audience, in a persuasive way. There are many different types of pitch from sales pitches, to funding pitches, to pitching yourself in an interview, but the aim is

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always the same: to persuade others to see the benefits of you, your product or idea, and to buy into it.

To make a good pitch you'll need to do three things:

1. grab the attention of your audience

2. take them on a clear and logical journey

3. leave them with a compelling call to action

Considerations for pitching online

Pitching over video is now the new norm, and startup founders have had to adapt quickly to make sure they do not fall behind. Here's my winning formula to help you communicate what you do in a compelling way when faced with this challenge.

As human beings, we all have habits that we fall back on when we communicate. Some of them are good and enhance what we are saying, while others actually distract the audience from what we are trying to communicate.

Over the past few months during the current crisis, I've worked with hundreds of business founders, helping them improve how they are pitching virtually. I've also been featured on the Croydon Business Webinar and worked with the brilliant team at TMRW coaching on their Fundraising Bootcamp.

Even if pitching doesn't come naturally to you, I believe that bad habits can be unlearnt and that people can pitch in a way that makes their audience sit up and listen, ultimately moving them to do something in response. Here are my top ten tips for pitching well over video.

1. Identify your key message

Ask yourself: 'If my audience only remembered one thing from my pitch, what should it be?'. The hope is that your audience will remember much more than that, but it is a good place to start. It will provide you with a 'red thread' that runs through your pitch. Use this and build the rest of your content around it, making sure you are reinforcing your message, rather than going off on unnecessary tangents.

2. Cut the filler words

When a pitch is filled with a lot of 'umms', 'ahhs' and words like 'kind of' or 'basically' your audience will lose focus. Some scientists now believe our attention span is shorter than that of a goldfish and while there is debate around this, anything that you can do to keep your audience's attention will only aid you. Because you will get much less real-time feedback in a virtual call than you would in a face-to-face pitch, you will need to fight the temptation to fill any gaps in conversation with filler words. Practise breathing between your sentences instead.

3. Stand up when you are pitching

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In 1967, Albert Mehrabian's study on non-verbal communication found that 55% of what you communicate is through body language, 38% is through the tonality of your voice, and the final 7% through the text you are saying. With this in mind, you will need to think about the delivery as well as the content of your pitch. Standing gives you more energy, more room to breathe and can help battle nerves. I use a make-shift laptop stand when I'm pitching so I can stand up with my laptop at eye-level. You can use anything from around your house to build a similar structure. To ensure you are standing tall, this is a great exercise called 'The String'.

4. Use stories in your pitch

A study by Stanford University found that a story (when told well) is 22 times more powerful than a fact. People need connection more than ever, so use stories to explain your customer's pain, or what you're doing to make a difference in the world. Make sure you have a clear beginning, middle and end, and include emotion and pictures.

5. Use less jargon

Most founders will suffer from what Donald Miller describes as 'the curse of knowledge'. You are an expert in your company and on the problem you are solving, and this means you will naturally speak in more technical language. Our brains don't like burning unnecessary calories trying to figure out complex words, so keep your pitch simple and use metaphors where you can to enable anybody to understand you.

6. Keep your slides as simple as possible

If you are using Zoom, Teams or Skype, when you share your screen your slides will dominate the screen, and you will appear as a small thumbnail. When I'm coaching people I often say to them 'You are Beyonce, and your slides are your backing dancers'. Your slides should back you up, rather than stealing the limelight or overwhelming the audience with too much information.

7. Make sure your camera is at eye level

No one wants to see your nostrils, so whether you are using your laptop camera or a webcam, make sure it is at eye level, rather than below your chin. Try as much as you can to look directly into the camera, as this will help you engage with your audience.

8. Project your voice when you are speaking

Because the audio quality isn't as good over video, you cannot afford to mumble! Think about over pronouncing your words or warming up your voice and facial muscles. A good way to warm-up your jaw is to imagine you have toffee stuck in your teeth. Use your tongue as if it is a toothbrush, and move it around in circles in one direction like you are cleaning your teeth, before bringing it back in the opposite direction.

9. Bring the passion

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If you look bored and sound uninspired you will struggle to engage your audience. We have mirror neurons in our brains, so do what you can to make sure you are leading your audience to where you need them to be emotionally. Think about smiling as you are speaking to bring warmth and energy.

10. Record yourself pitching, and then watch it back

Most people don't enjoy doing this, but it will give you a good idea of where your pitch is landing for your audience, and what still needs some work. It is really helpful to watch the video without sound so you can just focus on your body language. Then watch the clip with the sound on but look away from the screen so you can make note of where the tonality and volume are adding to the pitch, and where you can amplify these elements.

Pitching virtually is arguably harder than pitching face-to-face. But learning how to do it well now and practising new habits will make you stand out from the crowd. As Malcolm Gladwell says you're 'in a race to communicate why your customers need these products in their lives'. Make sure you do what you can to get ahead of the curve.

Ten tips to help you make the perfect pitch online | Croydon Digital

https://www.moo.com/blog/business-tips/9-tips-for-making-a-great-pitch

https://articles.bplans.com/9-things-that-take-a-pitch-from-good-to-great/

https://www.masterclass.com/articles/business-pitch-tips#10-tips-for-pitching-your-business-to-investors

REFLECTION SEMINAR GUIDANCE

1) Supporting Students to Reflect on their Group Work

To develop group skills, students need to do more than just complete group tasks. Along the way, it's important that they reflect on group processes. Reflection can be informal or formal (built into assessment). Students can reflect individually or in groups. Students can reflect on both the processes and products of group work. When incorporating reflective activities into group work, it is important that students have the opportunity to apply what they have learnt through their reflections to future tasks to improve their learning.

Read the following article for suggested ways in which to support and conduct group reflection using checklists, journals, peer review, class discussion, articulation, responding to feedback and reflecting on assessment evidence in essays or digital portfolio.

https://www.teaching.unsw.edu.au/helping-students-reflect-group-work

https://www.ed.ac.uk/reflection/reflectors-toolkit/producing-reflections/ways-reflecting/with-others

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2) Formative assessment

Feedback is an essential part of the learning process no matter the subject matter. People will always want to improve their performance, whether at work, school or university, or even just learning a new hobby, which is possible through constant feedback. Formative feedback means students can take control of their own learning. Unlike summative feedback, it doesn't just say whether an answer is right or wrong but also how to get there, which students can apply to future learning and assessments. Feedback allows every student to assess their own work for personal development, not just those who reach for the highest grades. Self -regulated learning enables students to accelerate their critical thinking and prepare themselves for life beyond the study books.

https://www.nwea.org/blog/2022/27-easy-formative-assessment-strategies-for-gathering-evidence-of-student-learning/

3) Two stars and a whish

Two Stars and a Wish. As Paul Black and Dylan Wiliam's research showed in 1998, feedback strategies raise the standards of student performance, and Two Stars and a Wish is designed to provide student feedback via peer- and self-assessment.

How it works

In short, Two Stars and a Wish solicits two stars—areas where the student's work excelled—and one Wish—an area where there can be some level of improvement. It can be administered in several ways, and ideally all three methods are used over time:

- Review an anonymous piece of work with the whole group and invite all students provide feedback
- Break the class into pairs and have them review each other's work
- Have each student assess their own work

Two Stars and a Wish helps activate students and empower them as owners of their learning, and research suggests that self-regulation of learning leads to student performance improvement.

LINKS TO OTHER USEFUL TOOLS

Digital tools which could can be used for collaborative online work

The digital tools named online noticeboards are suitable for brainwriting, mindmapping, discussions, and ideation for different types of virtual groupwork. The internet search with the key word "Online noticeboard" can disclose a whole set of offers to choose from and get the most suitable ones appropriate

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for different students' ages, interests, character of work to be realised, specialization, **etc. (https://www.whiteboardblog.co.uk/2011/09/8-online-noticeboards-wallwisher-and-more/).**

We would recommend *Padlet* (initially Wall Wisher) digital platform which enables students, teachers, and anyone with the link to work on a single or multiple walls for sharing ideas and collaborating in the virtual space that can be populated with rich media, including words and images, as well as videos and links. All the material can be instantly updated and shared right away keeping posts private, open to all, or shared with a specific group. The access to Padlet can be used not only during classes but also after them to continue the work on evolving on ideas both individually and in group. Padlet gives teachers and students an opportunity to give and get feedback. See the steps of creating Padlet **https://www.elo.iastate.edu/resources/instructional-tools/collaborative-tools/padlet/how-to-create-a-padlet-wall/ and watch the video-tutorial https://www.youtube.com/watch?v=7SuAKOoXNsQ**

Lino.It is a free sticker and canvas service to be used for sharing ideas and discussion **(http://en.linoit.com/).** However, a much simpler digital tool for this aim could be *Scrumblr* which is normally used for online brainwriting via adding to the page purely texts without any links, images, or videos. Owing to its simplicity and less distractions which might confuse learners, Scrumblr can be suitable for the pair work in phase 3. Simple clicking on the + icon adds more notes, and double clicking on the notes enables to add text. For creating different zones, text can be added to the background. See a Scrumblr demo version **http://scrumblr.ca/demo.**

The note taking of both external information and own thoughts are important learning tools as they enable to keep a record of the information heard and fix ideas which strike one's own mind when speaking to others. In addition, note taking facilitates learning of the material which is currently being studied. Therefore, the online discussion and analysis of the digital competences in the pair work is offered to be organized with taking notes on virtual stickers or walls instead of mere talking in breakout rooms.

Tools and techniques to go deeper

Tools:

The link below leads to the Open Educational Resources (OER) Wiki, which was based at the Faculty of Education, University of Cambridge, at oer.educ.cam.ac.uk. It was used to publish OER developed at the Faculty and is a really handy and useful collection of tools available under the creative commons licence.

Tools - OER in Education

Many teachers are being tasked with moving their learning experiences online. This naturally involves learning new skills, new approaches and embracing new tools. With this in mind, we have curated a list of 64 amazing free online tools for teachers. Some of these will make you more productive. Others will help to make your online classrooms more fun and engaging. Some of the tools will help you

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communicate with students and parents and share feedback. And some simply aim to reduce your stress levels.

64 Amazing Free Online Tools For Teachers [2022] - Growth Engineering

Techniques:

The link below leads to the Open Educational Resources (OER) Wiki, which was based at the Faculty of Education, University of Cambridge, at oer.educ.cam.ac.uk. It was used to publish OER developed at the Faculty and is a really handy and useful collection of techniques or approaches available under the creative commons licence.

Teaching approaches - OER in Education

The Gamestorming website is a set of tools and strategies for examining things deeply, for exploring new ideas, for performing experiments and testing hypotheses, to generate new and surprising insights and results setting out simple, easy to follow, instructions on how to use design practices for co-creation and Engagement.

Gamestorming

The UDL Guidelines are a tool used in the implementation of Universal Design for Learning, a framework to improve and optimize teaching and learning for all people based on scientific insights into how humans learn. These guidelines offer a set of concrete suggestions that can be applied to any discipline or domain to ensure that all learners can access and participate in meaningful, challenging learning opportunities.

The UDL Guidelines

ANEX1. METHODOLOGY AND TOOLS FOR ASSESSING DIGITAL TRANSVERSAL COMPETENCES

The aim of this document is to provide a methodology elaborated for assessing students' transversal digital competences defined in the 2BDigital Competence Framework for learning, working and living in a digital world while realising a social entrepreneurship project.

The assessment of digital transversal competences is designed to be conducted according to the model depicted in the following figure:

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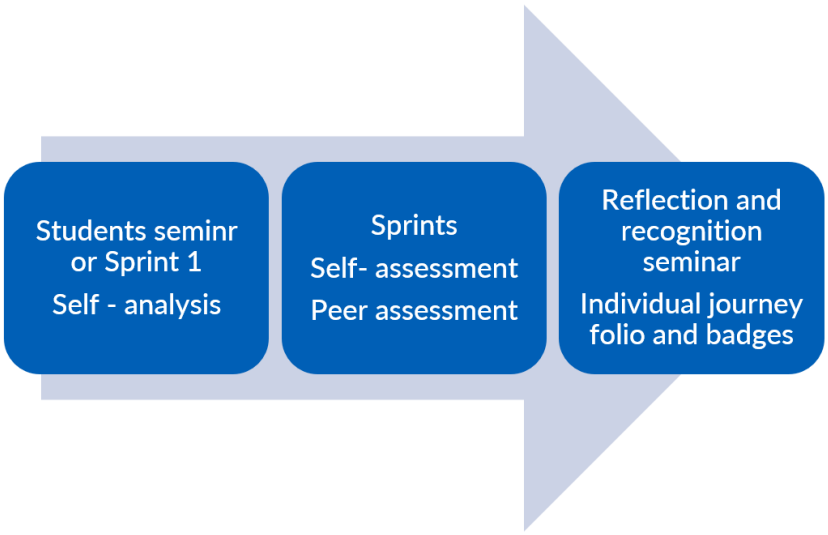

STUDENTS' SEMINAR

The objectives of the students' seminar are:

1. Give students an opportunity for self-analysis and comprehension of the levels on which they master digital transversal competences.
2. Promote students' understanding of the matter of the 15 digital transversal competences (further in the text digital transversal competences) and the levels of mastery.
3. Prepare students for the assessments to be conducted at the end of each sprint and at the reflection and recognition seminar.

The phases of the realisation of the introductory seminar:

Phase 1. Using the project digital competence evaluation tool, students are offered a self-analysis test consisting of 15 situations with four options of behaviour and are asked to decide which of these options could be more probable for them to undertake to solve the situation.

The solution of each situation is related to the use of one of the 15 digital competences. Based on this test, students identify their levels of mastery of these digital competences. At the end of this phase the teacher organises a discussion asking students how else they would act in each of the proposed situations. Such a discussion is needed to reveal students' digital experience, transversal competence development, and maturity to understand what kind of academic support, instructional techniques and digital provision should be offered to them during the project.

Phase 2. Students get acquainted with the matter of the 15 digital competences and their levels of mastery, as related to the competence framework, and through the project digital competence evaluation tool they see illustrations through the analysis of the situations given in the test.

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Phase 3. When students have already understood the matter of digital transversal competences and the four levels and have identified the competences that are most and least developed in them, **they are ready for creating their individual digital portfolios.** In addition, each student will decide which five digital competences he/she is going to work with and develop within the social innovation project, stablishing their competence development goals.

PHASE 1 **Using the project digital competence evaluation tool**

Jobs4Tech Competence Assessment Tool

This initial assessment of 2BDigital competences for learning, working and living in a digital world will be done through the upgraded version of the J4T digital competence evaluation tool, developed by Action against Hunger in the frame of the Erasmus+ project Jobs4tech: vocational education and training and jobs for a technological and virtual future.

The tool responds to the challenge of assessing students' transversal competences development online, through a digital platform accessible through web, and it has been adapted in the frame of 2BDigital project for its access also through mobile devices. The tool provides teachers with an individual report on each student's initial competence performance, and an integrated one for the group, to be able to work on individual/team perspectives. It allows the identification of student's initial competence level, to adapt training to better meet their specific needs, and assure no one is left behind. This is especially relevant in an online training environment.

The tool also provides students with personal graphic report on their competence level, and introduces them in the 2BDigital competences definition, and knowledge.

Only after doing the test the students are shown the levels of mastery of the digital transversal competences which correspond to the order of their answers:

- Level 0 – no digital solution offered when applying the transversal competence, for solving the situation;
- Level 1 – "Discovery", searching and identification of opportunity to apply transversal competences through a digital solution in a certain situation; This level is a starting point for learners with little or no experience of the competences who rely on support from others to complete familiar tasks.
- Level 2 – "Experiment", using digital tools in practice to cope with the task; This level indicates increasing independence working alone and with peers on familiar and unfamiliar tasks.
- Level 3 – "Improve", advanced digital behaviour involving also other people in it and creating a joint value for broad society. This level indicates tasking responsibility for making decisions and working alone and with others to complete unfamiliar tasks.

This helps students identify the digital competences they master and do not master well enough.

To help students understand the matter of the digital competences, they move to phase 2.

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PHASE 2 **Understanding the matter of digital competences and the levels of mastery**

For understanding the matter of the digital competences and the levels of their mastery interpreted and systemised in IO1, the digital competences have been reorganised in five tables - one table for each of the five groups of digital competences – Digital communication, Digital collaboration, Digital creativity, Critical thinking in a digital environment and Citizenship in a digital environment (see Tables 1, 2, 3, 4, and 5). These parts coloured in green make the rubrics for the assessment of digital competence mastery. For students' convenience, also illustrations of the corresponding levels (coloured in blue) taken from the situations elaborated for the self-analysis test are provided to create corresponding links between the theory-based definitions of the digital competences and their manifestation in practice. The abbreviation DC is used for digital competence. These five tables can be used at the first stage of the pilot implementation for students to have an applied example of their competence level. From then on, the developed 2BDIGITAL Competence Framework with its descriptors, competences and progression levels can be used as a reference.

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Digital competences and levels of mastery: Rubrics for students' self- and peer-assessment

Table 1

Rubrics to assess and illustrations to understand the levels of mastery of digital competences in the group "Digital communication"

DC	DC definition or Illustration	Levels of digital competence mastery			
Reading a& writing	**Definition**	**Level 0**	**Level 1**	**Level 2**	**Level 3**
	Read and write using digital tools	I find solutions other than digital ones.	Using digital tools and basic searching and filtering functions, I can read and write simple and short texts.	I can select and evaluate appropriate information and use appropriate digital tools and methods to communicate in writing.	I can conduct online research and use diverse digital tools and methods to present data and information in engaging and efficient ways.
	Illustration	**Level 0**	**Level 1**	**Level 2**	**Level 3**
	Your teacher shared information that most millennials (76%) are likely to spend more on their pets than on themselves, including buying pet luxury items. She invited you to study this phenomenon and write a report for presenting at an online class.	I would read some material on millennials' spending habits in our city library to write the report.	I would google to get facts using appropriate keywords.	I would encourage my group mates to share experience and would use this relevant data for creating a net of solutions through an online Mind Mapping Software. I would then use it for further discussion and online brainstorming	I would conduct a study by asking questions on Instagram stories, or other social media resources, collecting real data from millennials and prepare a report in a video format using animation software, like Doodly
Speaking &	**Definition**	**Level 0**	**Level 1**	**Level 2**	**Level 3**

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DC	DC definition or Illustration	Levels of digital competence mastery			
listening	Communicate orally and listen online using a range of tools adapting to the opportunities and challenges of online environments	I find solutions other than digital ones.	I can listen actively and adapt my language to suit the needs of the audience and the different online tools and settings.	I am able to encourage and integrate others' inputs and ideas into discussion and present my ideas in engaging ways.	I can actively encourage and listen to other people's ideas, using body language and empathy. I can present my own ideas in assertive and persuasive ways.
	Illustration	**Level 0**	**Level 1**	**Level 2**	**Level 3**
	During group work at an online lesson, you are to elaborate a strategy on how you overcome stress.	I would mute myself and stop video to ask my mum on how she overcomes stress to offer ideas to my groupmates.	I would listen to my groupmates actively and offer as one of the solutions listening to a "Stress relief music" on YouTube.	I would encourage my group mates to share experience and would use this relevant data for creating a net of solutions through an online Mind Mapping Software. I would then use it for further discussion and online brainstorming.	I would listen to my groupmates very attentively to understand exactly what kind of stress they experience. As it is a key topic influencing our wellbeing, I would suggest recording a video with the different speeches to raise awareness on the matter at school and community level.
Content creation	**Definition**	**Level 0**	**Level 1**	**Level 2**	**Level 3**
	Contribute information to digital media for a specified end-user/audience in specific contexts	I find solutions other than digital ones.	I can create simple online media content using text and images.	I can use digital tools to create and present different types of data and information to specific audiences taking account of their needs.	I can use different digital tools and techniques to develop and create content which can be used across a variety of media including digital, social media, broadcast or in print.
	Illustration	**Level 0**	**Level 1**	**Level 2**	**Level 3**

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DC	DC definition or Illustration	Levels of digital competence mastery			
	You are offered to participate at a students' conference with a presentation on the topic "Benefits of living in a small town".	I would speak to my relatives who live in a small town to gather opinions and systemise them for presenting at the conference.	I would create a Power Point presentation.	As my public are students, and they are more open to animated content, I would create…I would create a Canva presentation with animations	I would create a video presentation and stream it via YouTube to reach a bigger target audience.

Table 2

Rubrics to assess and illustrations to understand the levels of mastery of digital competences in the group "Digital collaboration"

DC	DC definition or Illustration	Levels of digital competence mastery			
Cooperation	**Definition**	**Level 0**	**Level 1**	**Level 2**	**Level 3**
	Work together on agreed goals using Web and video conferencing document and file sharing, document annotation and highlighting, calendar sharing, e-mail, instant messaging, wikis, blogs, social media, video and audio editing, etc.	I find solutions other than digital ones.	I can cooperate using online tools, demonstrating tolerance and empathy towards others to identify shared goals.	I can identify safe digital methods and potential dangers when collaborating with an online team.	I can contribute to online group decision making flexibly and constructively, taking leading roles if appropriate.
	Illustration	**Level 0**	**Level 1**	**Level 2**	**Level 3**

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DC	DC definition or Illustration	Levels of digital competence mastery			
	You and your team are supposed to elaborate a new project working online.	I would better offer to meet at school and brainstorm.	I would cooperate with my groupmates using Zoom chat, video, and audio (or similar) if my groupmates prefer it to other communication platforms.	I would offer to brainstorm by writing down our ideas in real time using Google Doc considering all the ideas without criticism and respectfully express points of view.	I would propose the group a way to work more efficiently, dividing into subgroups of interests and work in breakout rooms using an online notice board such as Padlet to cooperate in ideation.
Self-development	**Definition**	**Level 0**	**Level 1**	**Level 2**	**Level 3**
	Identify and develop aspects of self-including personal qualities and attributes	I find solutions other than digital ones.	I can identify my needs, wants, and interests online to develop personal digital learning goals.	I can proactively prioritise and take action to address my needs, wants, interests and goals using online tools and techniques.	I can use digital learning technologies to fulfil my needs, wants, interests and goals identifying required next steps for further improvement.
	Illustration	**Level 0**	**Level 1**	**Level 2**	**Level 3**
	Inspired by your friend's example you decided to learn to make original video material using a software suite, like Camtasia.	I would invite my friend over and ask him to show me how everything works.	I would browse the internet to find material on that software and watch tutorials to identify what could interest me and what I should learn.	I would download that software and practise to make some video fragments editing, adding different effects, importing media, etc. and planning what else is to be learnt next.	"I would look for online trainings, tutorial videos and forums on the tool, to meet my learning needs and also create videos and upload them for getting feedback on specific aspects such as content, format, etc and integrate them on improved versions.
Diversity and	**Definition**	**Level 0**	**Level 1**	**Level 2**	**Level 3**

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DC	DC definition or Illustration	Levels of digital competence mastery			
Inclusion	Recognise and value people's differences and use them to enable everyone to thrive	I find solutions other than digital ones.	I can identify the ways in which assistive technology can help people with different needs.	I can use software/digital applications and appropriate devices to develop, communicate/share information to include contributions from everyone.	I can demonstrate empathy, compassion, tolerance and understanding of other people's needs, interests, and experiences to promote active inclusion of everyone, developing use of inclusive and assistive approaches online.
	Illustration	**Level 0**	**Level 1**	**Level 2**	**Level 3**
	You are informed, that at an online seminar on career choices you will work in a group with a new student from China who is shy to participate because he does not speak your language very well.	I would smile at him on video to show my positive attitude and encourage him to participate.	I would learn some common Chinese greetings and expressions using the mobile app Duolingo beforehand for icebreaking and making my groupmate feel welcome. I would ask him/her about his/her experience participating in online seminars and using digital tools, to see if we can support each other	I would use Google Translate to express my key ideas in Chinese and inquire about his or her reasons for enrolling in the seminar. I would and invite him or her to exchange some digital tools useful in the vocational guidance process such as Career Explorer.	I would try that before we start working we could get to know each other's interests and needs and difficulties to participate in the seminar and that we could think together how to solve them. In addition, I would invite you to collect the points that worked best for our co-operation.

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Table 3

Rubrics to assess and illustrations to understand the levels of mastery of digital competences in the group “Digital creativity”

DC	DC definition or Illustration	Levels of digital competence mastery			
Value Creation	**Definition**	**Level 0**	**Level 1**	**Level 2**	**Level 3**
	Identify and create different types of value	I find solutions other than digital ones.	I can identify different types of value that I can create for myself and others in an online environment.	I can improve existing digital products, services, and processes so that they better meet my needs or those of my peers and community.	I can use digital technology to design, assemble test and progressively improve a prototype to illustrate the value I want to create.
	Illutration	**Level 0**	**Level 1**	**Level 2**	**Level 3**
	Your neighbour Alice asked you to look after her dog while she is away for two weeks. You know that the dog is very friendly, therefore is loved by everyone. Alice mentioned that there are not any dog hotels in your city.	I would talk to other neighbours and create a special ‘dog-sitting schedule’ to plan who will take care of the dog when to solve the situation.	I would discuss this question on social media (Facebook, Twitter, Instagram) to identify how topical this problem is in my city and what could be the best solutions.	I would elaborate a digital social innovation business idea for retired pensioners who love dogs and would like to earn extra money taking care of them when needed. For that I would participate in a digital social innovation Lab.	I would create a facebook group to connect dog owners and potential hosts, such as retired pensioners. I would create a video “Leave your dog with us” using content based on different sources about dogs’ psychology and habits and share it in social media to see it's possible uptake
Problem Solving	**Definition**	**Level 0**	**Level 1**	**Level 2**	**Level 3**
	Analyse a problem or issue to identify potential solutions	I find solutions other than digital ones.	I can identify a common digital problem, find and apply a solution.	I can use digital technology to create and evaluate multiple options to resolve a problem or issue.	I can identify evidence to evaluate impact of project activity and proposed solution using digital technology.

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DC	DC definition or Illustration	Levels of digital competence mastery			
	Illustration	**Level 0**	**Level 1**	**Level 2**	**Level 3**
	You and your classmates sometimes receive images in non-standard file formats with extensions different from .jpg which you cannot open on the computer. This time you received an image with a .psd extension.	I would call my friend who is an IT pro and ask him to solve the problem for me.	I would google to understand which software's native file it is and what programme is needed to open it.	I would find different online sources to acquire multiple options to resolve this task for me and my classmates.	I would elaborate simple tips based on my online findings and share them with my classmates to help them understand for what purpose non-standard image files are created and how to open them both on the computer and mobile.
Innovation	**Definition**	**Level 0**	**Level 1**	**Level 2**	**Level 3**
	Develop and introduce new ideas or processes to create value or achieve improvement	I find solutions other than digital ones.	I can find examples of innovative digital products, services and solutions.	I can identify how a digital solution is developed using digital creativity and its potential impact on an audience.	I can assess how a digital solution meets the needs of the intended task and audience.
	Illustration	**Level 0**	**Level 1**	**Level 2**	**Level 3**
	Your mum reminded you to visit grandmother who lives alone and needs company. Though offered to live together, granny wants to live only in her own flat. It is hard to find time as you study and work.	I would visit granny together with my friend so we could have fun talking and helping her around.	I would find online innovative digital products and services for seniors to find a complementary aid for my granny when we are not by her side.	I would explore what software and hardware were used to create the product to make sure it won't have an adverse effect on my granny's physical and mental health.	I would assess how applicable, user-friendly, and effective solutions offered by different digital products are (e.g., chat, alarms to take medication, creating grocery lists, checking the weather, privacy protection, hands-free calls, voice control to lock doors, turn on lights, and adjust thermostats, etc.) to increase her life quality.

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Table 4

Rubrics to assess and illustrations to understand the levels of mastery of digital competences in the group "Critical thinking in a digital environment"

DC	DC definition or Illustration	Levels of digital competence mastery			
Planning and Management	**Definition**	**Level 0**	**Level 1**	**Level 2**	**Level 3**
	Plan, monitor, and control activities	I find solutions other than digital ones	I can identify simple steps to plan an online activity.	I understand how to organise, store, share, manipulate and protect digital information in an online activity.	I can adapt my plans to achieve my goals in an online activity to manage changes that are outside of my control and manage risk.
	Illustration	**Level 0**	**Level 1**	**Level 2**	**Level 3**
	You are offered to organise a cultural festival in your district.	I would invite the organising committee to a café to discuss the concept of the festival.	I would create a WhatsApp group to regularly discuss the steps to be undertaken in different stages of the festival organisation.	I would offer to work with the digital notice board Padlet or similar to plan and manage activities, write down ideas, which can be kept private, made public, or shared with a specific group depending on our needs.	I would use an online event planning software (e.g., JIRA) for managing processes, prioritising, and discussing our joint work to achieve complete transparency at every step, get up-to-date information, improve team performance, manage risks, and adapt my plans when needed.
Learning	**Interpretation**	**Level 0**	**Level 1**	**Level 2**	**Level 3**

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DC	DC definition or Illustration	Levels of digital competence mastery			
to Learn	Awareness of own learning process and needs, identifying available online tools and opportunities, and the ability to overcome obstacles in order to learn successfully	I find solutions other than digital ones	I can identify digital tools which support learning opportunities and provide digital evidence to show my progress.	I can use feedback to identify next steps to grow my digital competence through both successes and failures.	I can use digital evidence and feedback to reflect on and extend my learning goals in relation to my future opportunities and choices.
	Illustration	**Level 0**	**Level 1**	**Level 2**	**Level 3**
	For your future career you need to improve your skills of working with Excel Spreadsheet Software.	I would find a tutor who could explain details I do not master in Excel.	I would join an Excel Forum for different tips and tricks to enhance my knowledge and skills of Excel, and for getting evidence of my learning outcomes by comparing my solutions with the Excel Forum pros'.	I would join an online training and development program to improve my Excel competence and plan my progress using regular feedback from teachers and peers and considering end-of-course evaluations, post-course individual conversations, etc.	I would study online job ads, analyse the employers' requirements related to Excel, participate in online interviews with potential employers, solve tasks using Excel to assess my readiness for that job and identify what needs bettering via participation in online courses, forums, etc.
Reflection	**Definition**	**Level 0**	**Level 1**	**Level 2**	**Level 3**
	Review and evaluate past thinking and action to learn from it	I find solutions other than digital ones.	I can identify what is good and what could be improved in a completed online activity.	I can judge if and how I have achieved my goals, so that I can evaluate my online performance and learn from it.	I can reflect on my (and others') achievements and temporary failures as opportunities to develop, learn and improve my ability to operate in a digital environment.
	Illustration	**Level 0**	**Level 1**	**Level 2**	**Level 3**

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DC	DC definition or Illustration	Levels of digital competence mastery			
	You want to become a famous vlogger. Therefore, you make videos on your mobile phone intending to publish them on YouTube. You want to identify the flaws of your performance and eliminate them to improve the quality of your work.	I would ask my friend to watch my videos and tell me his opinion of them.	I would evaluate the quality of the video material by the quality of its audio and video, add some simple effects (e.g., slow motion, background sound, etc.) to make it more enjoyable.	I would take on board the likes, comments, number of subscribers and watch hours to improve my content and quality. I would set myself personal realistic girls in terms of like, comments. I would then analyze them and see what works best to improve my content and quality.	I would watch and analyse famous vloggers' content, think of new strategies to make innovative vlogs and learn to use more advanced hardware and software to improve the quality and content to gain of subscribers.

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Table 5

Rubrics to assess and illustrations to understand the levels of mastery of digital competences in the group "Citizenship in a digital environment"

DC	DC definition or Illustration	Levels of digital competence mastery			
Well being	**Definition**	**Level 0**	**Level 1**	**Level 2**	**Level 3**
	Use experience of life; and comparison of life circumstances with social norms and values to promote feeling good and functioning well	I find solutions other than digital ones.	I can identify simple actions to take care of myself and others online to protect my personal information and safety.	I can identify risks and negative impacts of online working to take action to support care of my, and others', online physical, mental and social health, safety and privacy.	I can plan and evaluate actions to promote a positive digital reputation and footprint, taking care of my and others' physical, mental and social health in my online activity.
	Illustration	**Level 0**	**Level 1**	**Level 2**	**Level 3**
	You enrol on an online training were teamwork plays a key role. As you will have to communicate and collaborate always on an online setting, you are asked to think of some common agreements to make it work.	I would write down the main key elements of positive and negative long-term online communication based on my previous experiences and share my thoughts.	I would highlight the importance of treating online colleagues and friends with as much respect as real-life ones. I would also suggest paying special attention to protecting personal information and reputation and ensure everyone understands the consequences of posting photos and videos, watch my tone not to offend others, etc.	As I am aware of the risks of internet addiction and cyberbullying and mental, physical, and social health issues caused by them I would encourage a discussion for everyone to share and agree a set of behaviours that would make them feel comfortable online and a series of actions to avoid	I would feel confident to support my classmates in ensuring think proactively before providing personal information online, from posts on social media to app use, emails and the websites they visit to leave a positive online trail to make sure nothing compromises their future. I would suggest them tools to check and recommend ScamAdviser to be aware of phishing and identity theft, employment fraud, subscription, online shopping and other scams to protect ourselves.
	Definition	**Level 0**	**Level 1**	**Level 2**	**Level 3**

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DC	DC definition or Illustration	Levels of digital competence mastery			
Ethical thinking and action					
	Identify ideas and action and aligning them to shared values	I find solutions other than digital ones.	I can identify the difference between ethical and unethical actions online.	I can describe in my own words the importance of netiquette, integrity, and ethical values in a digital environment.	I can apply ethical thinking to contribute to a positive environment online.
	Illustration	**Level 0**	**Level 1**	**Level 2**	**Level 3**
	You are a chat moderator in an online game. You must ensure that there is respectful atmosphere. However, some gamers are using bad language, insulting others, showing intolerance and disrespect.	I would mark down nick names of rude gamers to deal with them later.	I would identify unethical behaviour with propensity for toxicity which can be described as sexual harassment, hate speech, threats of violence, doxing and other abusive activity. I would feel confident muting micros if any of these appears.	I would explain to them the ethical norms of behaviour during online games emphasising the importance of adhering to moral values and being tolerant to others.	I would participate in the elaboration of online gaming rules to promote respectful online environment.
Sustainability	**Definition**	**Level 0**	**Level 1**	**Level 2**	**Level 3**
	Plan, monitor and evaluate action and manage resources to meet current needs as well as provisioning for future needs	I find solutions other than digital ones.	I can list examples of environmentally friendly behaviour that benefits an online community and use of digital technology.	I can use digital tools and techniques to support environmentally friendly online behaviour.	I can assess impact and identify implications for the environment to select the most sustainable digital tools and techniques.
	Illustration	**Level 0**	**Level 1**	**Level 2**	**Level 3**

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DC	DC definition or Illustration	Levels of digital competence mastery			
	In your school there is a competition between classes to see which one has the least impact on the environment at the end of the year.	I would suggest maximising online working to reduce transport costs and the costs associated with the school's water and electricity consumption.	As I am aware of how digitisation can contribute to minimising environmental impact, I would suggest some digital measures that can be taken when working online, such as using ecological search engines (ecosia or goodsearch), reducing digital waste or using black wallpapers on your devices	I would show how we can use digital tools and techniques to support environmentally friendly online behaviour, like reducing internet's carbon footprint by powering off devices or dimming the screen when not in use, watching videos at a lower resolution, promoting audio instead of video calls, limiting the number of emails sent, including 'reply all', etc. I would volunteer myself to support others in following these techniques	I would share official facts, statistics and diagrams to show the scale of the growing negative impact of digital tools and technologies on the environment (e.g. in 2018, it was estimated that online video streaming alone released more than 300 million tonnes of CO2 into the atmosphere, which is equivalent to the total annual GHG (Greenhouse gas) emissions of Spain https://dig.watch/trends/digital-and-environment). I would promote new digital habits through elaborating "Digital Hazard Minimisation Guidelines" and initiate a movement in online community.

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PHASE 3 **Each student decides up to three digital competences to work with in the social entrepreneurship project**

Students are given an opportunity to participate in a pair work in Zoom or Microsoft Teams breakout rooms using an online notice board like Padlet, Lino.lt, Scrumblr, etc.

Such a discussion is meant for different purposes:

1. Comprehension of the matter of the digital competences and levels of their development by writing down on stickers or padlets the concepts from Tables 1, 2, 3, 4, and 5, which are not clear in full or are entirely new; the meanings of such terms are to be discussed with the partner and explored on the internet. In case if additional explanation is needed, the teacher should be accessible for getting consultation.

2. The chance for students to speak out their opinions about the results of the test and discuss whether they agree or disagree with them for their cases using Tables 1, 2, 3, 4, and 5 for their arguments. It is important that students are able to ground their points of view.

3. Deciding (by students) which three digital competences are most developed in them so that in the beginning of Sprint 1 they can create a base for individual digital portfolios to present themselves in the best but fair way (see IO2).

4. Sharing ideas (by students) on how they can develop certain digital transversal competences and follow their progress.

5. Deciding (by students) which three digital competences each of them will purposefully work with during the five sprints of the social entrepreneurship project (see IO2), and the competence level they want to achieve.

Important! The concepts used in digital context might have specific meanings in digital context. This should be studied additionally. For example, Level 1 of the digital competence "Ethical thinking and action" is described as "I can identify the difference between ethical and unethical actions online" (see Table 5). There cannot be any confidence that students might be aware of different facets of unethical actions online – digital plagiarism, breaking copyright and software theft, improper use of computer resources to run own Internet business, media piracy, ransomware attacks, identity theft, intellectual property theft, financial theft, etc.

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ASSESSMENT IN SPRINTS 1,2,3,4 AND 5

At the end of each sprint, students are to conduct self-assessment (individually) and peer-assessment within their teams (see IO2) to monitor their progress, highlight challenges and plan their further actions to achieve the goal set, concerning the task success criteria, their own competence goals, and their development as part of a team.

SELF ASSESSMENT: FORMATIVE ASSESSMENT

The self-assessment will be both of quantitative and qualitative nature. The qualitative part named formative assessment is the one which is based on students' reflections. Formative assessment is to monitor student learning and to provide ongoing feedback that can be used by teachers to improve their teaching and by students to improve their learning.

In the 2BDigital project, formative assessment is meant to:

1) help students to analyse their learning process and outcomes, and identify their strengths and weaknesses related to the use of definite digital transversal competences when accomplishing the tasks planned for the current sprint.
2) provide an opportunity for students to express their feelings and emotions experienced during each sprint including what they liked or disliked.
3) enhance students' awareness of their team performance, what has gone well and what not, so they decide on the further steps that are to be undertaken to improve their learning outcomes, evolve their digital competences and improve the collaboration;
4) provide feedback for teachers on students' achievements, challenges faced, learning needs, digital concepts, phenomena, techniques, and processes that students are struggling to understand, and digital transversal competences they are having difficulty for acquiring;
5) enable teachers to address problems immediately and decide what type of adjustments are to be made in academic support, instructional techniques, and digital provision to students in the forthcoming sprints to help students overcome the challenges and improve their performance.

The questions of the reflection offered for formative assessment could be similar to the ones shown in Table 6.

The questions for formative assessment

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No	Questions for reflection	Dimension
1.	What things have I learnt today?	Learning
2.	What did I manage to do well in this sprint? Please, explain.	
3.	What challenges did I face today? Please, explain.	
4.	What should I do in another way in the next sprint to improve my results? Please, explain.	
5.	Things the team should try. Please focus on experiments, process improvements, good habits, etc..	Groupwork
6.	Things the team should stop doing Please focus on inefficiencies, time wasters, bad behaviours/habits, etc.	
7.	Was I valued by my groupmates? Please, comment.	
8.	Was I objective to my groupmates? Please, comment.	
9.	At what level of mastery did I work with the three digital competences which had been planned for this sprint? Please, explain.	Digital competences
10.	What did I like/dislike in today's work? Please, explain.	Emotions & feelings
11.	Association with what colour, taste, animal, flower, or music do I have when describing my feelings and emotions experienced today? Please, explain.	

Important! By the beginning of Sprint 1 Learners reflect on the self-assessment results to identify a profile of skills ie a level for each of 15 competences. However, at each sprint students should mainly concentrate their attention on three digital competences out of these five competences. To understand which three competences could be chosen for the current sprint, in the beginning of each sprint students are offered the list of actual digital transversal competences which are logically related to the content of activity to be realised in that sprint (see IO2).

The digital tools which could be used for formative assessment

Tastes differ. Also, teachers' preferences of using digital tools for assessment could vary greatly depending on several factors - study subjects which they teach, students' age, interests, specialization, etc. As formative assessments have no point value, all the tools meant for getting feedback with mainly closed ended questions, like "Did I like working in group when creating value?" with a set of answer options are not very appropriate for the project 2BDigital.

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Although, teachers can organise short post-sprint surveys and polls asking a few questions to get summarised feedback from all the students at once and analyse the results together. For such a purpose, teachers usually use game-based learning platform ***Kahoot*** (https://kahoot.com/what-is-kahoot/), assessment tools ***Mentimeter*** (https://www.mentimeter.com/) or some other software (***AnswerGarden***, https://answergarden.ch/; ***eSurvey Creator***, https://www.surveyhero.com/esurveycreator-is-now-surveyhero; ***Lino.It*** http://en.linoit.com/; ***Plickers***, https://get.plickers.com/, etc.). These assessment tools are attractive, and students have a fun when they have an opportunity for such interaction with the teacher.

However, to ensure deeper analysis of own learning performance and gaps, changes in mastery of digital competences, and feelings and emotions experienced by students, as well as to get an opportunity for collecting individual feedbacks from students, some other digital tools could be more suitable. The questions given in Table 6 can be offered for students' reflection, that is for self-assessment, using several online survey tools:

- ***Google Forms***, easily created and shared online forms, and surveys with analysis of responses in real time (https://www.google.com/intl/en-GB/forms/about/). Google Forms can be used as a quick and easy free online formative assessment tool for asking both close- and open-ended questions. To monitor students' analysis of their experience gained in each sprint, the teacher gets their answers in one spreadsheet organised in a chronological order of submitting the answers.
- ***Moodle platform***, provided freely as an open-source learning management software which can be customised in any way and tailored to individual needs. Moodle is one of the most widely used e-learning environments which provides most flexible tool-set to support both blended and 100 % online courses using a complete range of built-in features, including assessment tools (https://docs.moodle.org/400/en/About_Moodle).
- ***SurveyPlanet***, meant for creating free online surveys with unlimited questions and responses designed with hundreds of features to help make perfect survey for conducting research in education, business, and other fields (https://surveyplanet.com/).
- ***Reetro*** a simple but effective free retrospective tool for asking feedback, track action items, engage unmotivated students / team members, manage unplanned activities, and avoid distractions (https://reetro.io/).

PEER ASSESSMENT

As the social entrepreneurship project is to be realised in groups, it is reasonable to offer students to also have a short peer-assessment session after the self-assessment. This order is conditioned by the intention to avoid the impact of the group's opinion on self-assessment in the very beginning, at the same time leaving a space for reconsideration of one's self-assessment results in the light of peers' evaluation afterwards.

Peer assessment is reasonable as follows:

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Through a group discussion in Microsoft Teams or Zoom breakout rooms. One by one each

student gets feedback from groupmates on their overall performance:

- what he/she managed to do well in that sprint;
- what they recommend paying attention to in the forthcoming sprints related to the digital competences planned for developing.

Also, more specific peer-assesment on their competence progression baased on the 2BDIGITAL Competence Framework should be done. Such assessment is possible by peers for two reasons:

- In the beginning of each sprint each student informs his/her groupmates which three digital competences he/she will be focused on in that sprint.
- All the students understand the competence progression levels and will be able to monitor how their groupmate is applying the digital competences during group work.

This feedback might be integrated in the learning journal after the discussion.

In the end they exchange symbolic electronic gifts (video, music, gifs, some funny memes, etc.) as gratitude for the collaboration in that sprint.

This session could be organised using ***Padlet, Lino.It or Scrumblr*** online platforms so that the key ideas are not only articulated orally but also written down on notice boards or stickers for better perception.

Important! Students should learn to comment on others' performance in a positive and constructive manner so that nobody is insulated. The feedback given should be valuable and development oriented.

Important! Students should learn to comment on others' performance in a positive and constructive manner so that nobody is insulated. The feedback given should be valuable and development oriented.

REFLECTION AND RECOGNITION SEMINAR

SUMMATIVE ASSESSMENT

This seminar is aimed and recognising and celebrating progress, acknowledging and sharing with classmates and trainers their learning journey and results based on their own set objectives.

Summative assessment is type of course evaluation that takes place at the end of a training or program. If formative assessment is designed to track learners' progress along the way and to provide feedback, allowing revisions and corrections of mistakes to modify behaviours, summative assessment is final grading to reflect learners' mastery or proficiency. Summative assessment is the process of

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evaluating student's knowledge, competences, and performance by comparing what they know with what they have learned regarding own stablished goals. As in the 2BDigital project students are to develop their digital competences realising a social entrepreneurship project, the summative assessment idea could be in the comparison of the digital competence mastery levels at the end of the project with the levels defined in the 2BDIGITAL Competence Framework.

In our case, summative assessment is be conducted by the teacher at the Reflection & recognition seminar based on:

1. Team progress presentations (see IO 2).
2. Individual learner progress and portfolio presentation (see IO2). Based on previous Self- and peer-assessments of the levels of digital competence mastery. Students' formative assessments and finalising reflection on what they have learned, what progress they have made in developing their competences, what evidence they have collected, etc.
3. Final peer-assessment. Peers may provide final feedback on the mastery level their peers think their peers have acquired, based on the evidence presented. This will support students on having a wider perception and integrating others' points of view.
4. Two stars and a wish. This activity will allow for the creation of a collaborative mural in which students can identify new competence objectives that they would like to keep working on after the pilot.

This is a multi-faceted complex task based on different types of activities at individual and group level. In addition, this task is not directly linked to a concrete study discipline, whose assessment criteria are defined in rubrics provided in the educational standards. Therefore, summative assessment rubrics for 2BDigital is to be elaborated to fit its goal holistically.

It is obvious that there should be at least two dimensions of summative assessment - teamwork-based and individual-progress-based evaluation.

The combination of self-assessment and peer-assessment results can create a more realistic picture of the growth of digital competence mastery as it unites internal (self-assessment) and external (peer-assessment) evaluation aspects. The way to do so can be two fold. We recommend to proceed with a more reflective approach, always based on the framework and the evidence gathered in the journeyfolio; or from a more quantitave approach that might as well be helpful for trainers in need of score points and marks.

REFLECTIVE APPROACH

How to realise it is shown in Table 10 for the abstract Student A.

Each student gets (from the Jobs4tech competence assessment tool)/creates a spider-web chart, which shows similarities and differences in his/her and their groupmates perception of how well

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he/she masters the five digital competences. Such a comparison gives much food for thought; it promotes students' metacognitive power, that is the ability to analyse, structure, and improve their own thinking process. Student A might, for example, think "Why do I think that the level of my digital competence 'Planning and management' has grown while my groupmates think that it has not changed?" Or "My groupmates consider that my progress in 'Diversity & inclusion' and 'Wellbeing' is higher than I think of myself. Why might this be?". They have already gathered the evidence backing up their own perception, but now they should consider other points of view and perceptions that can broaden their own's.

This metacognitive analysis will bring to evidence for judging competence development to be included in the digital portfolio which will be presented during this seminar. Of course, Student A will discuss these findings with Students B and C for clarifying their points of view and coming to a common understanding.

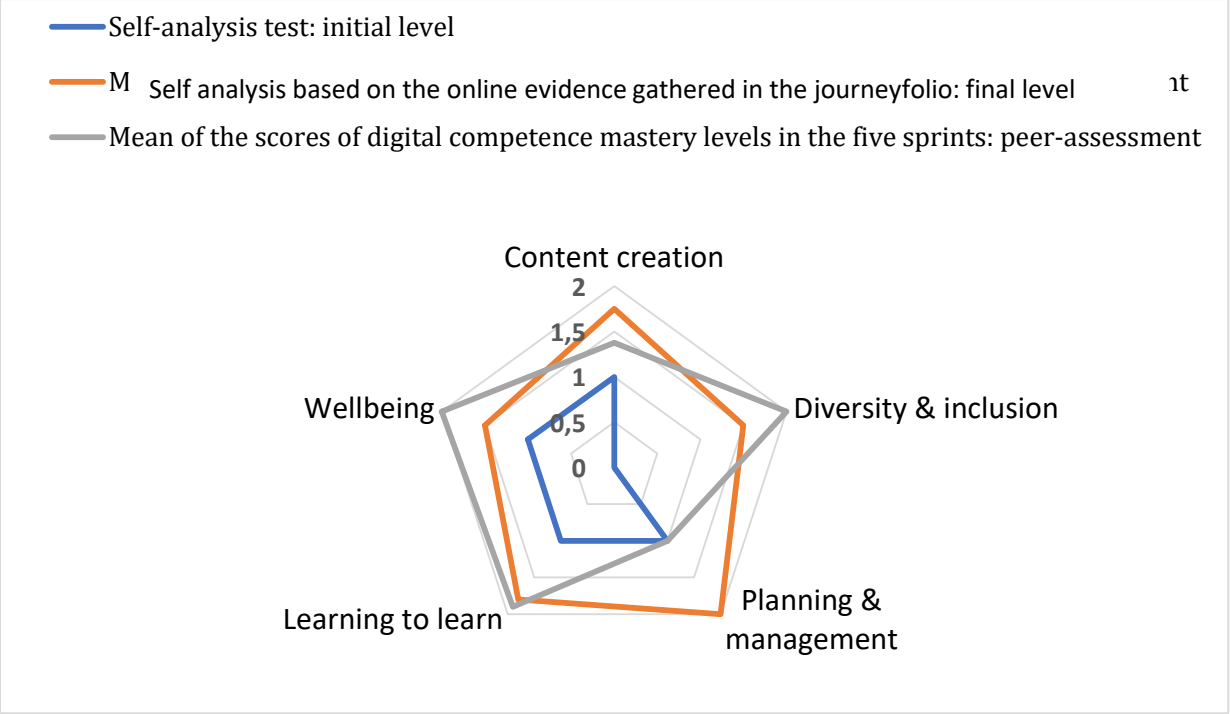

Figure 3. Self-assessment vs. peer-assessment of Student's A digital competence mastery levels

QUANTITATIVE ASSESSMENT

This numeric assessment is suggested for those trainers who might prefer having a score-based result, although we encourage using the reflective approach whenever possible to be more aligned with the overall objectives and methodology of the project.

The key concepts of the summative assessment could be based on the following judgements:

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- Level 1 of digital competence mastery corresponds to the lowest positive grade as it is assumed that below that digitality is not manifested in students' actions and solutions. Digitality starts with Level 1.
- Level 3 corresponds to the highest grade.
- The scores (points) which correspond to the other grades between the lowest positive and the highest grades can be determined by dividing the distance between Level 1 and Level 3 into the number of grades.

This approach can be illustrated with the following example:

Table 10

Combination of self-assessment and peer-assessment of Student's A digital competence mastery levels

Digital competence	**Content creation**	**Diversity & inclusion**	**Planning & management**	**Learning to learn**	**Wellbeing**
Self-analysis test: initial level	1	0	1	1	1
Mean of self-assessment and peer-assessment scores of digital competence mastery levels in the five sprints	1,56	1,75	1,5	1,85	1,75

It is obvious that Student A had certain growth in mastery of all the five digital competences. But how to grade him for that at the end of the project? The visualisation of Table 10 in Figure 4 gives the cue.

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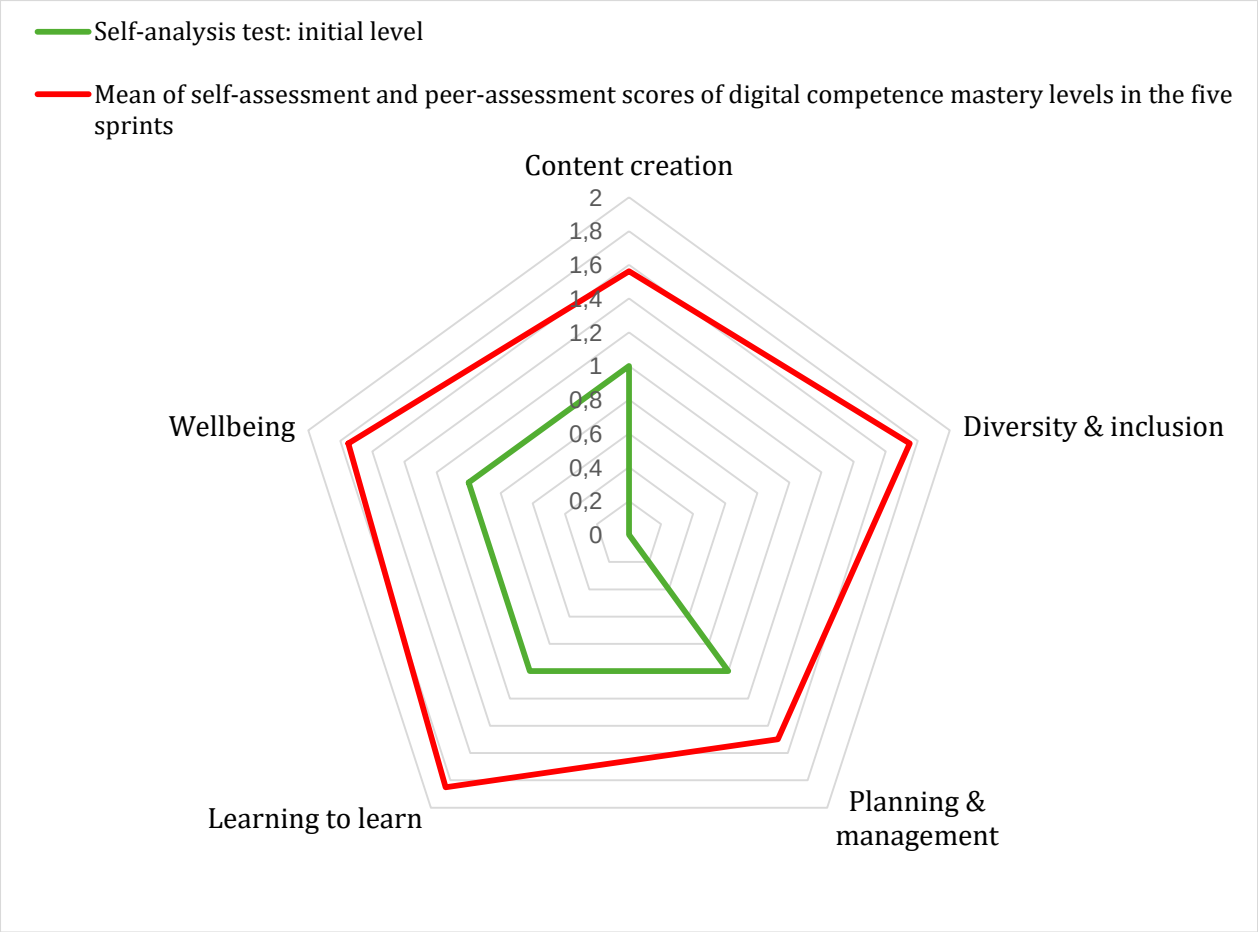

Figure 4. Combination of self- and peer-assessment results of digital competence mastery

To be based on the "Marking system of the European Schools: Guidelines for use" we have created a grading system 'Excellent', 'Very good', 'Good', 'Satisfactory', 'Sufficient', 'Weak', and 'Very weak' (Schola Europaea, 2020) keeping to the key concept of 2BDigital mentioned above (see Table 11). The grade 'Sufficient' starts with level 1 (scored from 1 to 1.39). For simplifying the process of the creation of the matrix for assessment of digital competence mastery, the scores of the five grades from A to E are calculated by dividing 2 (2 levels between lowest positive Level 1 and highest Level 3) by 5. Though the score/point range between grades slightly differs in Schola Europaea (see page 41 of the document), for our case it is not so principal as the assigning marks will be finalised taking into account also some other complementary factors.

Table 11

Matrix for summative assessment of digital competence mastery in 2BDigital

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Solution type	Scores/points due to Levels	Grades	Marks
Digital	2.60 – 3.00	A Excellent	9 – 10
	2.20 – 2.59	B Very good	8 – 8.5
	1.80– 2.19	C Good	7 –7.5
	1.40– 1.79	D Satisfactory	6 – 6.5
	1.00 – 1.39	E Sufficient	5 – 5.5
Non-digital	0.45 – 0.99	F Weak	3.0 – 4.5
	0.0 – 0.99	Fx Very weak	0.0-2.5

This matrix can be used for grading and assigning marks very easily. For Student A it is shown in Table 11.

Table 11

Grading of Student A in the summative assessment

Digital competence	**Content creation**	**Diversity & inclusion**	**Planning & management**	**Learning to learn**	**Wellbeing**
Mean of self-assessment and peer-assessment scores of digital competence mastery levels in the five sprints	1,56	1,75	1,5	1,85	1,75
Mark	6 – 6.5	6 – 6.5	6 – 6.5	7 –7.5	6 – 6.5
Grade	D Satisfactory			C Good	D

So, the grade of Student A is D satisfactory, and the mark is between 6 and 6.5. However, depending on the formative assessment, team progress presentations, individual learner progress and portfolio presentation, and evidence for judging competence growth, the grade can either grow to C Good with mark 7 or remain the same D Satisfactory with mark 6. Summative assessment is a holistic process. The more aspects are considered, the better if it is possible.

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It is not excluded that some teachers might like to assess some aspects of students' learning in virtual environment more specifically. The model given in Figure 5 could be appropriate for identifying criteria for that.

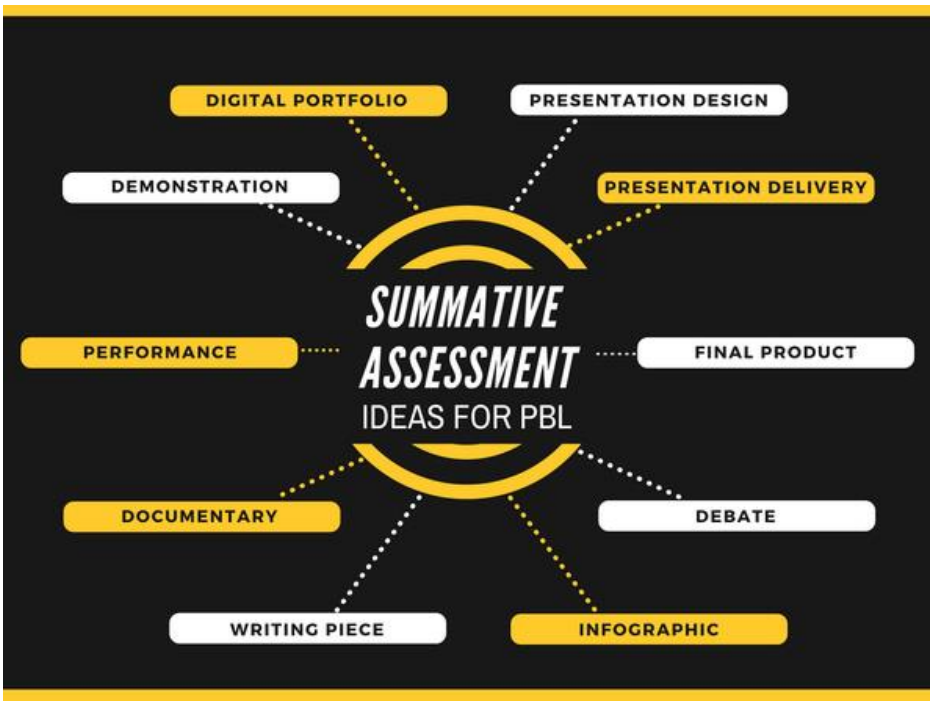

Figure 4. Summative assessment ideas for problem-based learning (PBL) (Northern, 2022)

Problem-based learning (PBL) is very close to how students learn in 2BDigital as they identify and solve problems in virtual environment using digital tools. Therefore, teachers can pick up most appropriate criteria from this model of Summative assessment ideas for PBL for creating summative assessment rubrics. It is important to emphasise that despite a great number of assessment rubrics for project work, they are either too general or too specific focused on one key idea which might not suit the specific needs of assessment.

For example, the source "Working as a team rubric" is really valuable for deep analysis of how the student felt as a group member and how he acted towards others while working in group (https://docs.google.com/document/d/1LAYqLkhTp_FDGT8OVwdFZUHU-ENexlUN/edit?usp=drive_web&ouid=116746129728762900051&rtpof=true). But can this rubric alone be used for the summative assessment of digital competence? Obviously, no!

References

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