Digital Collaborations PLAYBOOK!

Learn

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?

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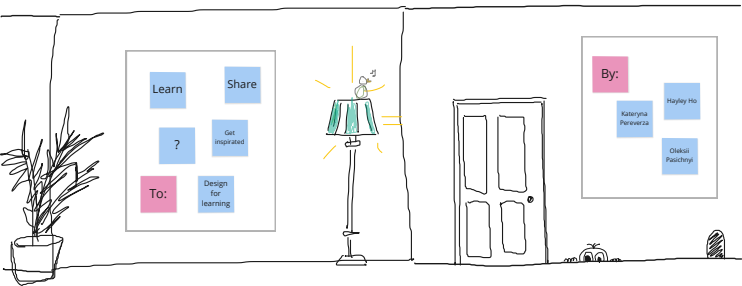
To:

Design for learning

By:

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Welcome to the Digital Collaborations Playbook!

The Playbook is created to inspire others to develop digital facilitation techniques and spaces to support for collaborative learning!

To facilitate collaborative learning in digital spaces, we cannot just copy old approaches, we need to rethink and redesign them.

...developed a four-steps framework to structure activity examples.

To create this Playbook we...

...invited students to the Digital Collaborations Workshop to jointly identify challenges and opportunities for remote learning.

...analysed processes of design and implementation of two project-based courses and picked most interesting examples.

...used Miro to design and collaboratively put together the content!

What is in this Playbook?

Introduction
- Course Context
- About Us

The Courses
- About our Courses
- Project Work Stages
- Examples of Activities by Stages

Activities & Facilitation Techniques
- How Activities are Described
- How to use Playbook
- Activity Examples
- "Try It Yourself" activity templates

Digital Spaces used in our Courses
- Digital Spaces

Reflections
- Reflections from Remote Learning

Course Context

This Playbook is about collaborations and collaborative learning in the context of university courses run digitally

What is special about this context?

In courses, deliverables are often related to grading.

Courses are short-term / limited in time:

Groups have to be formed rather quickly and the group dynamics should evolve fast to enable efficient collaboration within a group.

Teachers and students meet only during scheduled activities, a lot of work and collaboration is happening beyond the classroom in spaces created by project groups themselves.

Courses are usually designed with certain intended learning outcomes in mind. But we should not forget to approach learning as an open-eded process of exploration.

In this Playbook we approach collaborative learning from a multi-level perspective

Project groups

Entire class

Mixed groups (random pairs)

About Us

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Concept, Content including examples
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Examples from MJ2685

Check out our Medium series about
Meaningful collaborations:
https://medium.com/meaningful-
collaborations

About our Courses

This Playbook includes examples of facilitation techniques and approaches developed in the context of two master-level courses in KTH Royal Institute of Technology, Sweden.

Fully digital course

Broad problem framing, open-ended design process, future orientation, system innovation, collaboration with societal stakeholders.

Based on the project work guided by mPB framework

http://mpb.urbant.org/

AL2115 "Transdisciplinary Approaches for System innovations"

Master-level course is run over 2 months, 7.5 ECTS

https://urbant.org/tasi/

Project groups are formed by teachers aiming to make them as heterogeneous as possible (considering gender, educational and cultural backgrounds). 4 or 5 students in a group.

Focus on technological solutions, students can choose a topic for their project work from the proposed directions, collaboration with societal stakeholders.
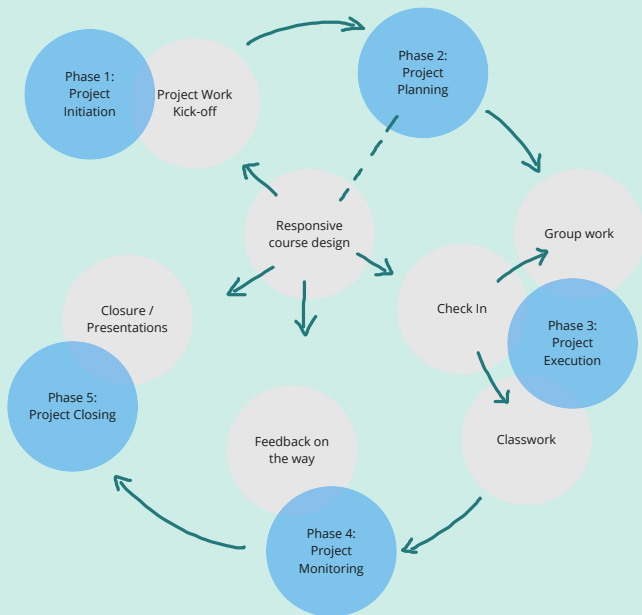
Hybrid course, several activities digital

MJ2685 "Smart Cities and Climate Mitigation Strategies"

Project groups are formed by students themselves, following several criteria set by teachers.

Master-level course run over 4 months, 7.5 ECTS

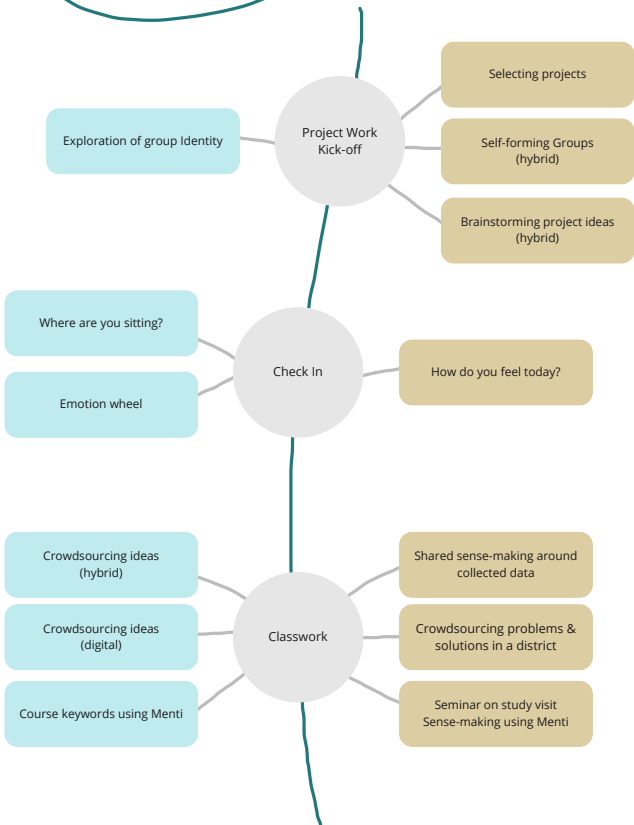https://www.kth.se/student/kurser/kurs/MJ2685?l=en
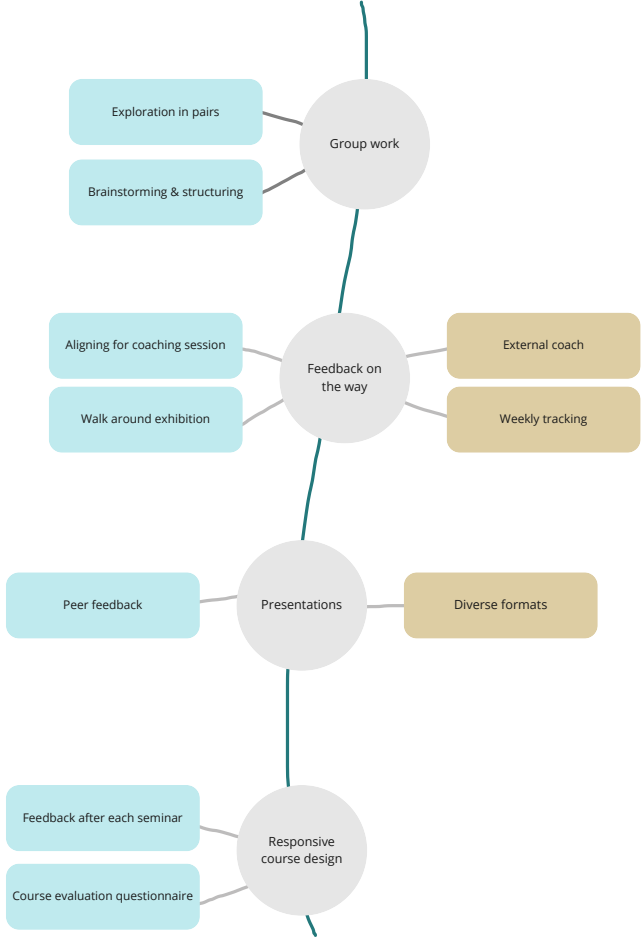
Project Work Stages

Depending on course context project work can be organised differently. In this Playbook we connect to five stages of project lifecycle identified in project management. We then propose facilitation techniques and approaches that can support collaborative and reflexive learning at each of these stages.

Phase 1: Project Initiation

Project Work Kick-off

Phase 2: Project Planning

Responsive course design

Group work

Check In

Phase 3: Project Execution

Closure / Presentations

Phase 5: Project Closing

Classwork

Feedback on the way
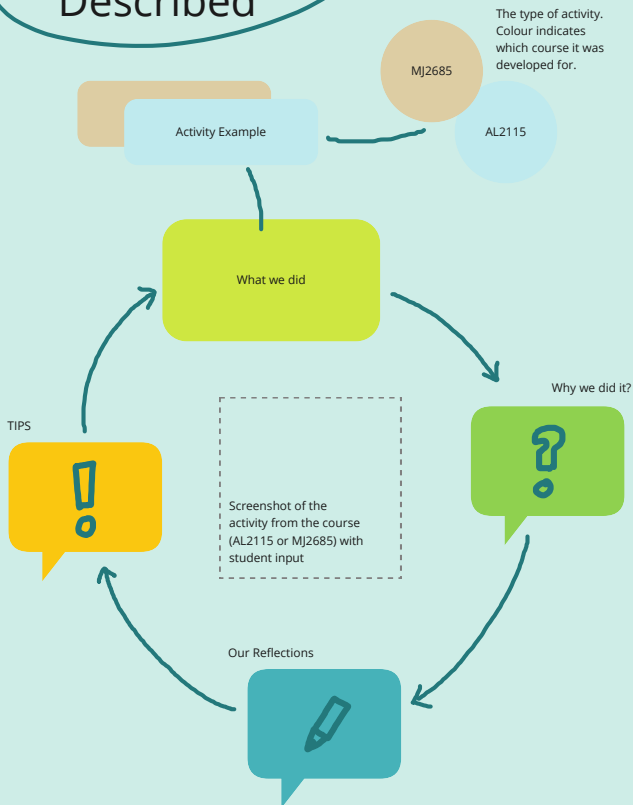
Phase 4: Project Monitoring

Examples of Activities by Stages

The examples are picked to illustrate diverse approaches that can be used to create environments supportive for collaborative and reflexives learning on different stages of project work.

Project Work Kick-off

- Exploration of group Identity
- Selecting projects
- Self-forming Groups (hybrid)
- Brainstorming project ideas (hybrid)

Check In

- Where are you sitting?
- Emotion wheel
- How do you feel today?

Classwork

- Crowdsourcing ideas (hybrid)
- Crowdsourcing ideas (digital)
- Course keywords using Menti
- Shared sense-making around collected data
- Crowdsourcing problems & solutions in a district
- Seminar on study visit Sense-making using Menti

Group work
- Exploration in pairs
- Brainstorming & structuring

Feedback on the way
- Aligning for coaching session
- Walk around exhibition
- External coach
- Weekly tracking

Presentations
- Peer feedback
- Diverse formats

Responsive course design
- Feedback after each seminar
- Course evaluation questionnaire

How Activities are Described

MJ2685

AL2115

The type of activity. Colour indicates which course it was developed for.

Activity Example

What we did

Why we did it?

TIPS

Screenshot of the activity from the course (AL2115 or MJ2685) with student input

Our Reflections

How to use Playbook

What we did

- Think about what you would like to achieve in project work activities
- Be inspired by the course case examples
- Adapt exercise for different contexts
- Come up with own exercises
- Mix and match the different modular components
- Come up with own components

Project Work Kick-off

Check In

Resonsive course design

Classwork

Group work

Feedback on the way

Presentations

Activity
Examples

Project Work
Kick-off

Exploration of group Identity

Project Work Kick-off

1. Project groups meet for the first time to
   - come up with a group name;
   - find out what different group members have in common;
   - find out about the skill-set of the group, connecting unique skills of different group members;
   - create a group agreement on how to work together.

2. Each group uses a blank space on Miro to visualise what they would like to share with other groups, connecting to the questions above

Give each group ownership and responsibility for their own work. For them to quickly understand how they can work together respectfully

Group I — Task-Force Sustaina

Group IV — Frame 2 — The Usual Suspects

Quickly find a way to bond with the rest of their group by finding things in common

Group II - The Chameleon Audit — THE CHAMELEON AUDIT

Group V

Group III - The Happy Meerkats

Group VI — GREEN POWER RANGERS — Engineering and Science

Allow enough time for the exercise

Make sure that there is time for groups to share with others
- to build connections on the level of the entire class

Each group found their own way to visualise their identity. We provided only a blank frame with their names but no set structure

The exercise works best if introduced when groups meet for the first time and before they are going into more specific tasks or parts of the project work

This was a good exercise for them to help each other learn how to use Miro

All the groups celebrated both the things they had in common as well as their differences

Brainstorming project ideas (hybrid)

Project Work Kick-off (hybrid)

SHELDON
MIT, PhD   USA

GEEK
+ Physics, common sense & video games
- Bad with keeping secrets

1. Students make large badges with their name, programme, country, skills and interestsio

2. Everybody joins a table station corresponding to the one of the topics of interest reported beforehand.

3. Each student presents self and own vision of project according to the table topic.

4. Based on individual inputs each table station group aims to identify what common project could be.

5. Steps 2-4 are repeated two more times

Give everybody opportunity to orient themselves in the space of potential collaborators and possible projects

Provide iterative approach to (re)framing project ideas to align individual interests with possible team formations

Make project supervisors available for instant feedback on generated ideas

1. Introduce yourself, what are you interested in?
2. How do you see the project implementation?
   1. What should be done? What would 'ideal' project and up with?
   2. What your contribution could be?
   3. What is important for you in group work?
3. Discuss in group to elaborate a common project vision

Demand response (AN)

Put the energy feedback in a way that people can understand

CO2? Health? Price? What unit are we using to present data

What we have discussed:
1. To use the datas from the co2 emission from the power plant in the considered area where also have set the smart meter to access the raw data of people's consumption per hour.
2. To use the changing energy price data.
3. Considering the unit would be the co2 emission (how much change of people change their behavior) and the money.

Coming discussion:
what do they care.
see the border.

Develop a software that allows consumers to have real time information

How do present data to make it understandable and accessible. How to make citizens act in a more sustainable way without too much effort

Compare Co2 emissions to something more understandable (daily basics knowledge)

Student networking should be prioritized over resulting project concepts

Make sure that groups reach the project concept elaboration stage in each round

The exercise worked well in both analogue (paper + post-its) and digital (Miro) forms simultaneously. In case of hybrid setups, digital form had to be preferred

Supervisors should avoid dominance in idea presentation rounds, and should rather prioritise facilitation role for group discussions

This step was a great support to subsequent groups' formation stage that ensured students learn better each other and understand better possible project areas

Organisation of topic table stations was the most important part of preparations - repeating 'popular' project topics and combining/dropping outlier ones

Self-forming Groups

Project Work Kick-off (hybrid)

Introduce consensus-oriented practices from the very first meeting of the student groups

1. Students form project groups that should meet diversity rules

2. Each group makes presentation of their group (group name, members with photos, countries, programmes)

3. Each group discusses group agreement on how to organise their work

Make each student to co-own responsibility for their newly formed group

A project group should be
- Number of students 4
- Multi-gender
- Multiple countries of origin
- Multiple study programs
- Multiple study year

Ensure that each group represents the diversity of the entire class

MJ2685 Project group agreement

Group agreements

1. How do we plan project group meetings (time and place) in order to make sure everyone can attend?
2. What should a group member do if she/he is sick and cannot attend a planned meeting?
3. How do we document project meetings and what should be included?
4. Where do we save notes from project meetings and other project material, so that all group members can access them?
5. How do we ensure that the group is prepared for supervision sessions?
6. How do we ensure that interim and final deliverables are prepared in time?
7. How do we ensure that the workload is evenly and fairly distributed among project group members?
8. How should the group handle if one member is not handling her/his agreed tasks in a responsible way, or if collaboration in the group is not functioning well in some other aspect?

Discuss any rules with students before imposing those. Fix those if needed

Giving away the process of group formation to students created higher engagement and responsibility from their side.

If time allows, make groups share their questions to group agreements in Miro or in mixed breakout rooms to exchange results across groups

Encourage students to develop their group identity - it is a good team-building exercise and would make them more dedicated to project later

Making group formation more conscious process to students paid off well with more efficient teams later.

Having a group agreement process allowed to raise up many unspoken issues at the very beginning of the project work.

Selecting projects

Project Work Kick-off

Each group prepares a pitch for 3 different project ideas, answering two questions:
1. What is going to be done?
2. How is it going to be done?

Supervisors select the groups propose the best fit between the proposed ideas and supervisors' skills & competences

Make groups to elaborate project concepts further

Conduct pitches for possible projects in an open mode to stimulate groups for better performance

Project idea #1

Anders Nilsson

What is proposed to be done:
Improvements of the transport system in SRS (Norra Djurgårdsstaden) to become environmentally efficient and fossil-fuel free by 2030.

- A representation of the chain of processes involved in the transport system of SRS (conceptual model).
- Agent-based modelling of the behavior in the existing system
- Simulation of sustainable mobility alternatives

How is it expected to be done:
1) Research through literature reviews of reports etc. of SRS (transportation type, layout, data available in the documents etc.)
2) Study visit (specific data of the transportation system of SRS)
3) Accounting for energy and material flows
- Use software to conduct agent-based modelling e.g. Anylogic
- Research of alternative mobility alternatives

Facilitate group selection process with supervisors's team

Consider joint co-supervision of groups and mixing-up project concepts - this can result into the most interesting project concepts

Project idea #2

Marco Molinari

What is proposed to be done:
Evaluation of Live-In Lab and Building Testbed

- Figure out what Live-In Lab and Building Testbed mean and their uses.
- Find out the different kinds of Live-in Lab and Building Testbed in the world.
- Evaluate them from different aspects.(cost, data range, modularity, lifespan, etc.)

How is it expected to be done:
- Gather basic information from the Internet.
- 1) Read papers about Live-In Lab and Building Testbed.
2) Visit homepages of these organizations and make contact with researchers for further information.
- Choose the most representative labs and testbeds to conduct evaluation.

Dynamic distribution of projects among supervisors is harder in the beginning but it allows for more competition among groups with their project concepts

Ask students to upload the project concepts beforehand - it would allow to focus on presentations and questions

Project idea #3

Aram Mäkivierikko

What is proposed to be done:
Suggestions to improve electricity consumption based on residents' interests

- Target on a problem regarding electricity consumption
- Identify residents' interests
- Put forward possible suggestions to solve the problem
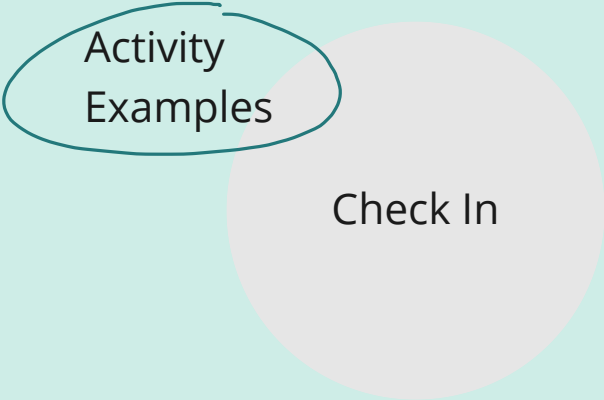
How is it expected to be done:
1) Collect electricity consumption data (from smart grid information, data collected from LocalLife platform etc.)
2） Analyse the data with Tableau
3 ） Identify which area has the biggest problem.
- Do a keyword analysis based on posts about electricity on Locallife platform/survey
- 1) Based on people's interests, put forward some specific suggestions
2) Conduct literature review or survey to further discuss the feasibility of suggestions

Do not approve inconsistent projects - if needed, help students to elaborate their concept further before final sign-up of supervisors for the project supervision

This exercise familiarised students with pitch format and helped them to be more efficient in communications further in project work.

This exercise familiarised students with pitch format and helped them to be more efficient in communications further in project work.

Activity
Examples

Check In

Where are you sitting?

Check In

1. Everyone to grab a star and move it to the place on the map from where they are joining the activity
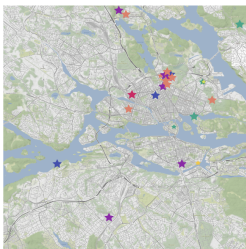2. Everyone to grab a star and place it on the country they are originally from

Check-in: Where are you calling from?

Ensure you have a politically correct map

Make visible that course is taken by an international group of participants

Good activity to create connection when meeting for the first time

Facilitate an introduction round when meeting for the first time

Students and tutors participate together

One student pointed out that his country was missing

Simple and visual - can very quickly get a sense of how diverse the group is

Great for the group to see how remote learning has enabled so many students to take part from different places
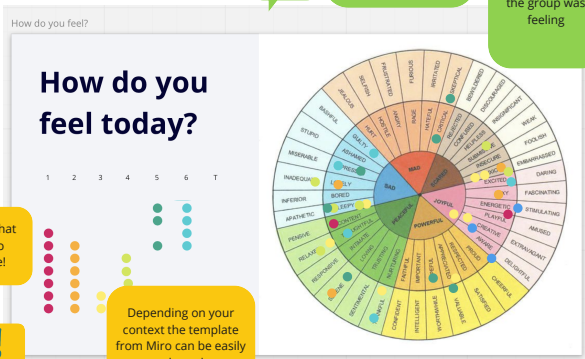
Emotion wheel

1. Everyone to pick a dot and position it on the emotion "wheel" template.
2. After everyone has positioned their dots, have a short reflection session related to where dots have been positioned

Check In

For students to empathise with each other and tutors - this is not always easy through video calls

?

So that tutors can get a sense of how the group was feeling

How do you feel?

How do you feel today?

1 2 3 4 5 6 T

Make sure that tutors also participate!

Depending on your context the template from Miro can be easily adapted

!

Be prepared to handle responses of students - a range of emotions can vary greatly, and can uncover both positive and negative emotions

This exercise can be repeated to follow changes over the course

Students enjoyed this exercise and saw it as an opportunity to express their feelings and share with others

Helped to create a feeling of belonging and was a way to relate to the rest of the class - often clusters of emotions appeared

"Emotion wheel" template is taken from the Miroverse

How do you feel today?

Check In

1. Everybody to login into Miro for the first time.
2. Put a sticker or a shape with your answers to 3 questions:
   - How do you feel today?
   - What are you impressions from the course so far?
   - What do you expect from today session?

Softly introduce a new collaboration tool Miro

1. How do you feel today?

Excited :D

I feel Hungry

FRUSTRATED

I feel good

Both students and supervisors should participate

2. What are your impressions from the course so far?

Give students an opportunity for immediate feedback

Block all Miro elements that should not be changed

!

Make students tuned for more open discussions

?

Make sure to have pre-filled examples to avoid clean whiteboard block

3. What do you expect from today session?

get to know others and the project

Meet colleague with similar interest

It was easier to introduce Miro first time in live class to provide immediate support

Starting with 'non-important' easy-to-go exercises makes it easier to warm-up students and make sure everybody is active

Activity
Examples

Classwork

Crowdsourcing ideas
(hybrid)

Classwork

1. Everyone in the class to create at least one slide in a shared Google Slides with ideas for a certain task or topic to be explored. In the example below, the topic was "the future of mobility by 2050".
2. Joint sense-making - go through the pictures with entire class and let students comment and clarify ideas they suggested

To create a mindset of collaborative learning between the groups rather than one of competitiveness

To expose students to as many diverse ideas as possible in as short time as possible

Crowdsourcing of ideas

Systems and solutions for mobility, connectivity, accessibility of services, goods, people

Make sure everyone has access to Google Slides if working in the physical classroom. Students can work from the same device and from their phones

Students were impressed by how quickly they collected ideas in a short time. They would then use all the ideas in their project work

Make sure to ask students to comment on original ideas and clarify if ideas are unclear from the pictures alone

The exercise worked well in the physical classroom

It was an effective way for students to experience collaborative learning as they shared in order to learn from each other

Crowdsourcing ideas (digital)

Classwork

1. Everyone to bring several pictures onto shared online whiteboard (e.g. Miro) to visualise their ideas for certain topic. In the example the topic was "the future of education on a university campus by 2050".
2. Joint sense-making

To expose students to as many diverse ideas as possible in as short time as possible
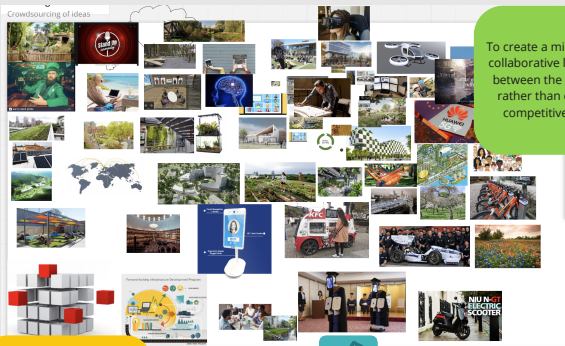
To create a mindset of collaborative learning between the groups rather than one of competitiveness

Crowdsourcing of ideas

Encourage students to comment on each other's ideas and ask questions about ideas that are unclear

Students can see what others are adding in the real time

The exercise worked well in the digital space when students were connected on Miro and Zoom

Teachers can also add their ideas!

Images are easy, fast and visual, but students can also draw, write text and add links

Many ideas collected in a short time. The frame with pictures stays on the shared Miro space during the course, enabling students to return to it at any time

Classwork

Crowdsourcing problems & solutions in a district (hybrid)

To develop critical and system thinking among students

1. Everyone to participate in the study visit to the new environmental district in Stockholm - Stockholm Royal Seaport.

2. Within 1 month each student has to identify and upload to crowdsourcing platform ushahidi.io:
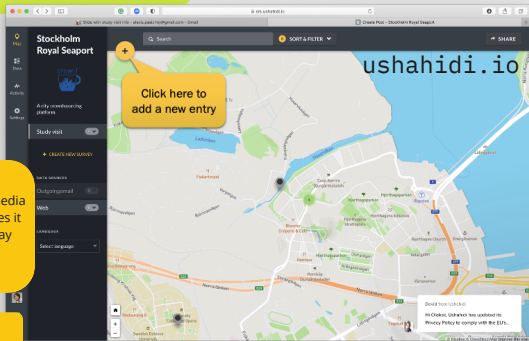- 5 solutions
- 2 problems
- 1 question

Data is shared with all class.

To follow-up individual student learnings within the study visit activity

To gather multiple perspectives on the same object of study

To test-drive and demonstrate new digital solutions for crowdsourcing information

ushahidi.io

Encourage upload of rich media (images, videos) - this makes it more common to everyday student routines

Ask for both positive and negative examples

Giving students enough time allowed them to return to the district themselves and be more reflexive in this exercise

Giving students a crowdsourcing task made them more attentive during the guided part of the study visit

Lead by example - add some first entries to the system when explaining the task

Ushahidi.io was easy to set up for the exercise and could be used from any mobile phone

Classwork

Shared sense-making around collected data (digital)

To discuss learnings from the study visit

1. All students are split into groups by 5 topics:
a) Nature-based, b) Energy, c) Mobility, d) Waste & water, e) People inclusion

To identify successful and problematic points for the analysed district

2. Select relevant solutions, problems & questions from the crowdsourced data

155 entries
97 solutions
38 problems
20 questions

3. Briefly summarize how the analysed domain is addressed in the district?

To analyse the data crowdsourced by students

4. What potential improvements could your group propose?

WWW.TURBOCOLLAGE.COM

Make discussion groups random to avoid clustering by interests and ensure critical and diverse perspectives

Even though large focus of the guide during study visit was on technical solutions, the students highlighted many societal aspects of the district

Share all collected materials beforehand to ensure that students can access it and get accustomed before group work.

Ask groups to choose one picture that illustrates their discussion

Crowdsourced data provided a good side view on the same phenomena which made many students to review their initial personal perspectives

Having all study materials available online made it easy for digital seminar

Course keywords using Menti

Classwork

Students were asked to launch Menti and reply to question(s) during a lecture or seminar. Answers are shared with everyone.

In this example a word-cloud was created to find out what keywords students associate with the course, everyone could insert up to 5 keywords

?

To quickly collect, visualise and share with everyone a variety of perspectives and possible alignments

While it is quick and easy to get a general overview of the class, it would have been good to make time to discuss the thinking and reasons behind the words

Prepare questions on Menti in advance so that it is ready to be used at a suitable time during an activity

Students often mentioned keywords that were related to the most recent talk/activity

Classwork

Seminar on study visit
Sense-making using Menti

Students use Metri to answer questions regarding the SRS district from the study visit.

While majority of questions required qualitative feedback, this graph illustrates distribution of grades put by students to three sustainability dimensions of SRS - economic, environmental and social.
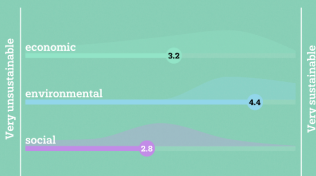
To have fast diagnostics of existing opinions and identification of possible points for further discussion

To make a fast ice-breaker for discussion seminar

Go to www.menti.com and use the code 61 76 31 6

Please grade sustainability of SRS:

M Mentimeter

economic   3.2

environmental   4.4

social   2.8

Very unsustainable

Very sustainable

24

Good for intros and outros, avoid for in-depth analysis

Test specific color themes before usage - some colours can be hard to read

If using Zoom, prepare Menti-links beforehand and share them directly to chat.

Menti is attractive due its interactivity for larger groups, however it can get too anonymous pretty fast.

Handling this exercise solo can become fast pretty boring. We discussed each questions either with second teacher or some volunteers from the class.

Activity
Examples

Group Work

**Brainstorming & structuring**

Group Work

1. Everyone is asked to individually brainstorm around guiding question(s).
2. Groups sent out into breakout rooms for joint sense-making around individually generated ideas.
3. Each group finds a blank space on a shared board to organise the outcomes of their group's discussion.
4. Groups share insights with each other.

In this example, groups developed criteria as a module of the mPB framework

Students explore new concepts in inductive way

?

Help students to explore specific modules where they have to elaborate in-depth within their project work
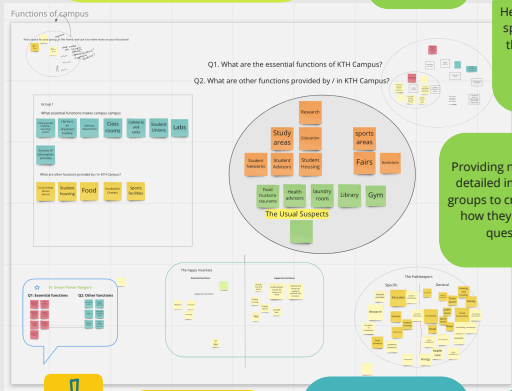
Providing no strict template or detailed instructions enables groups to creatively think about how they can approach the question together

!

Ask each group to decide in advance who will represent them to quickly share with the class

Once students are familiar with the tools, try providing less strict templates so that they can organise and visualise work in their own ways

Each group had slightly different approaches to addressing the activity, which were all interesting in their own way

✎

Joint discussion led to interesting and shared insights of what is special about a university campus in comparison to e.g. any other city district

Start with a few examples from another field, provide more examples and theory after the exercise. Link these to the joint discussion and reflections!

Groups can see what others are doing on Miro in real-time. Helped to align in terms of exercise duration and expectations

Exploration in pairs

Group Work

1. Random pairs are formed with students from different project groups to explore a topic. In this example, they were asked to identify current and future roles and needs of a persona/stakeholder.
2. Pairs follow suggested steps in their exploration and visualise outcomes on Miro.
3. Pairs share developed personas with the entire class

To mix students from different groups to collaboratively explore new topic and learn from each other
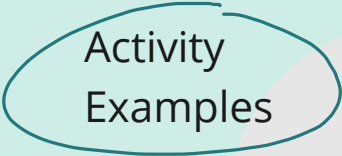
To consider perspectives beyond their own
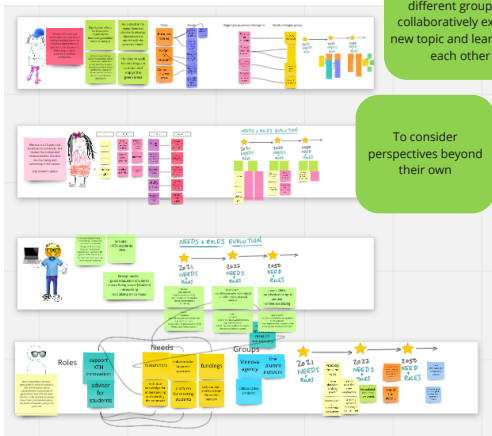
Before splitting into pairs, students can individually brainstorm personas describing and visualising them on shared Miro space

Working on Miro synchronously, some pairs connected their personas to those developed by other pairs even though they sat in different break out rooms

Pairs came up with very interesting personas. Yet quite many picked young people they can easier emphasise with

Activity
Examples

Feedback on
the Way

Aligning for coaching session

Feedback on the Way

Groups to come up with 3-5 questions they would like to be addressed during next feedback meeting or a coaching session in preparation to the final presentations as in this example. Groups to write their questions on the dedicated space in Miro

To find out what is perceived by students as problematic and needs to be additionally addressed

Provide opportunity for students to influence what kind of input will be provided during upcoming feedback meetings

The Happy Meerkats

Pathkeepers

Q1. Do we need KPIs for the criteria or how measurable do they need to be?
Q2. How many attributes of the solutions are reasonable to include?
Q3. How should we write about the vision in the report?

In the limited time, only commonly asked questions can be picked for a coaching session

Can be used several times during the course, some time in advance before every feedback meeting

Some questions can be addressed asynchronously before or after the coaching session

Revealed that students had problems with parts that were not seen as problematic by teachers and vice versa

Some groups were less pro-active than others in asking for relevant feedback

Feedback on the Way

External coach

'Switch' groups from development to finalization logic in their project work

Groups meet the consultant that has practical experience in running innovative teams and creating startups and is not involved in the rest of the course.

Groups have to wrap up ongoing project work in a way it is clear to external person, that later provides feedback on the possible improvements

Provide feedback from 'out of academia' perspective

Provide feedback from 'out of academia' perspective

Students take presenting project work more responsibly when it comes to somebody new

This session helps students to focus on what could be done further before the project end

Make clear to students that the coach is not part of the supervisors' team - in this way

It can go very wrong if the coach do not consider the targets and limitations of the course. Make sure you are on the same page beforehand!

This session often opens up a 'second breath' to the groups for the final stage of project work

Walk around exhibition

Feedback on the way

Creating posters encourages students to explore creative ways to communicate their ideas fast and without powerpoint slides

Groups prepare to share interim outcomes of their project work, in this example - future visions they developed. The outcomes to be prepared as posters and placed on "virtual walls" on Miro.
Students are organised in random pairs to jointly "walk around" and write feedback post-its. The pairs can pick to represent certain stakeholder group

To add an element of fun and physicality. The virtual room invites students imagine themselves walking around together

?

!

Encourages collaborative learning in the class as students feedback to each other

Working in non-group pairs enables socialising outside of the group, and works against group competitive mindsets

Can be used several times during the course to explore different interim outcomes

Role play enables students to empathise from perspectives other than their own

Teachers can also participate and leave their feedback on post-its

Virtual walls need to be prepared in advance

Students personalised the room outline with additional icons/sketches. We kept these drawings when we used the "virtual room" for other activities later

Feedback on the way

Weekly tracking

To support students in the self-analysis of the efficiency of particular members and group as a whole

Every week project groups fill-in a tracking form answering to 4 questions:

1. What was done since previous checkpoint?
2. What is planned to be done during the next week period?
3. What are current problems (if any)?
4. What actions/input from supervisor(s) are needed (if any)?

To have regular monitoring of group work with minimal intrusion

Weekly project tracking

This form aims to track the weekly progress of the project groups in the course MJ2685/2686 HT19 Smart Cities and Climate Mitigation Strategies during the project period (September 16 - December 13), starting from week 38 and ending after week 50 (13 reports in total).

The checkpoint of the weekly tracking is Sunday, 23:59, one report per group is enough.

*Required

To enable early diagnostics of group work problems
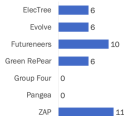
# of submissions by week

4 4 5 3 5 3 4 2 2 2 1

38 39 40 41 42 43 44 45 46 47 48 49 50
Week number
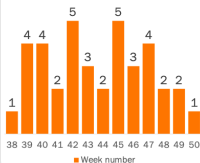
Email *

Your email address

Your project group *
○ ZAP
○ ElecTree
○ evolve
○ Group Four
○ FUTURENEERS
○ Green RePear
○ Pangea

# of submissions by groups

ElecTree 6
Evolve 6
Futureneers 10
Green RePear 6
Group Four 0
Pangea 0
ZAP 11

Your name

Your answer

Groups tend to fill it in when something is done. So if there are no entries it is also a valuable signal.

What was done since previous checkpoint?

Your answer

What is planned to be done during the next week period?

Your answer

What are current problems (if any)?

Your answer

What actions/input from supervisor(s) are needed (if any)?

Your answer

Make sure that all supervisors check the form submissions on the regular basis and react to those if needed
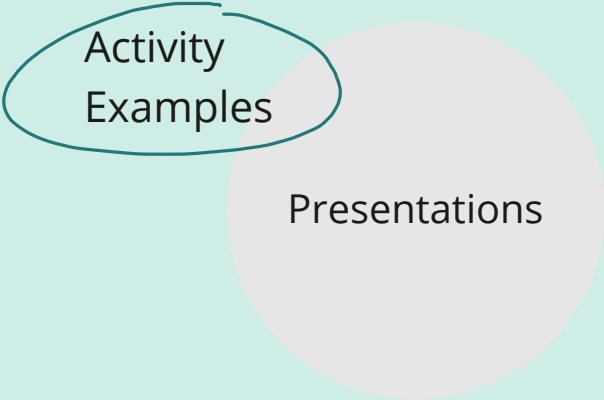
This instrument allowed not only to monitor student groups, but also gave the course coordinator possibility to overview the efficiency of various supervisors.

Do not make it compulsory, rather present it as a self-regulatory practice that by statistics brings groups to better results.

Allow for several individual entries per same group - that gives teams with conflicts a good 'whistle-blowing' mechanism

Weekly tracking proved to be a very helpful tool in solving out 'problematic' cases - groups with conflicts / poor final results, etc

Activity
Examples

Presentations

Peer feedback

1. Each group present their final or interim outcomes and reflections
2. Teachers and fellow students use post-its to write their feedback, questions and learnings after each presentation and place them on a respective "feedback poster" on Miro
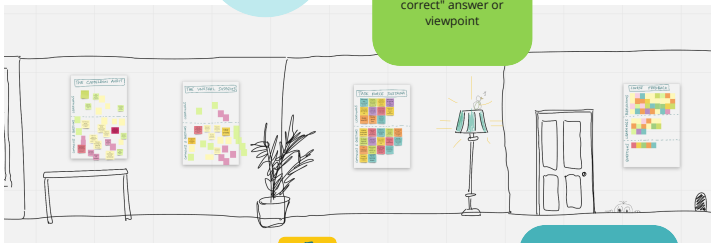
Presentations

To be aware of learnings that we gain from each other

Encourage class discussions

That progress and learning is shared responsibility

Challenge the myth that teachers hold the "most correct" answer or viewpoint

Can be used both mid-way though the course (e.g. for interim critique) and during final presentations

Societal partners can also participate if they join

It was easier to get the entire class involved in discussions in the physical format compared to the digital

Groups responsible for asking questions always initiated interesting points, that often led to follow up questions and a longer discussion

Some students added to the space with colour and additional drawings!

Templates for feedback posters have to be prepared in advance and placed on virtual wall on Miro. Facilitation is required to guide all participants through the presentations & feedback session

Presentations

Diverse formats

To avoid traditional powerpoint lock-in and support students' creativity

To support students in choosing the format that would fit presentation of their project in the best way

For final presentations groups are supposed to make 2 presentations of different types:

1. Traditional in-detail to supervisors and related groups, with peer-review and Q&A (15 min)

2. Free-format 3 minute pitch to general public, where any product / performance can be made (e.g. movie, product demo, theatrical play, poster + podcast etc)

To allow for fast and efficient presentation of the course results to external audience

useproof.com
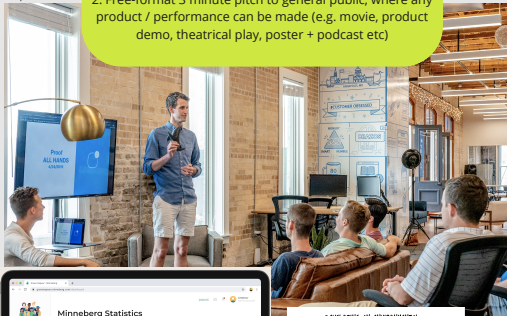
Assistant preview

meet a consultant   know information on energy

know information on energy

What kind of data would you want to see?

Quantitative data   Visualization data

Energy mix   Back to menu

Or you can enter your own question ;)

Energy mix

▶Electricity network in Celsiusskolan:
  -Vattenfall:
    · 51.2% Nuclear power
    · 46.3% Hydro power
    · 2.5% Wind and solar power
  -Area SE3

Other information:

Back to menu

[Type something...]

Minneberg Statistics

DEVELOPING AN ENVIRONMENTAL DEMAND RESPONSE SIGNAL

Freeing-out format of project pitches made having many project presentations more energetic and engaging
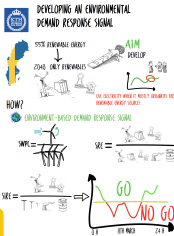
When presenting the task, enumerate diverse possibilities, but avoid giving any particular examples from previous years in order to not direct students into one solution

Make sure to plan for enough mingle time after presentations are over - it is an important part of this session.

Students get more practice in presenting their results to external audience without compromising the quality of technical evaluation

Students get more practice in presenting their results to external audience without compromising the quality of technical evaluation

Invite relevant societal partners and colleagues to enrich students' feedbacks

Activity
Examples

Responsive
Course
Design

Feedback after each seminar

Students are encouraged to leave feedback, share key learnings and ask additional questions on the allocated space on Miro. Teachers can respond to the questions asynchronously between the seminars

Responsive Course Design

Gather input from students for responsive design of the course

Provide space for students to communicate their feedback and questions
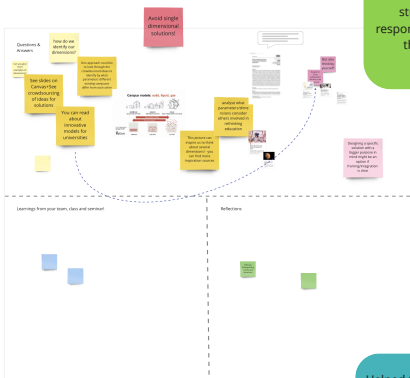
Make sure to allocate space for feedback in relation to each seminar

Allocate time for going through feedback and questions soon after the seminar

Helped to save time during seminars since some questions can be asked and answered in between seminars

Students not always leaved their feedback

Course evaluation questionnaire

Responsive Course Design

At the end of the course, students are asked to fill in a digital course evaluation questionnaire to leave their feedback and provide suggestions for improvements in the future

Gather input for the responsive course design on the level of the entire course edition

Get to know how the course is perceived by students and what qualities of learning they self-report

Course evaluation questionnaire

After this unusual fully on-line edition of AL2115 course, we are very much interested to learn about your reflections and perception of the course. Please, reply to this questionnaire in your capacity as a student of AL2115 in 2021. We will use your answers for continuous course development in physical, digital and possibly hybrid formats.

Please reply to the questionnaire by Friday, April 23, 2021. Thank you!

Next

Many constructive and interesting reflections collected

Launch the questionnaire soon after the course so students can leave their fresh impressions

The response rate to the digital questionnaire proved to be lower then for the paper one distributed in the classroom in the previous years

Try it Yourself!

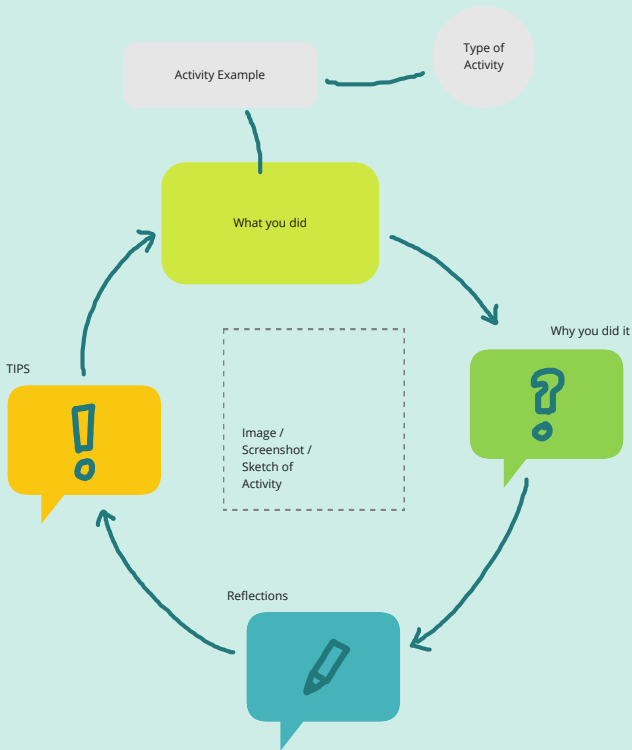Use the templates on the following pages to design or document your own activities
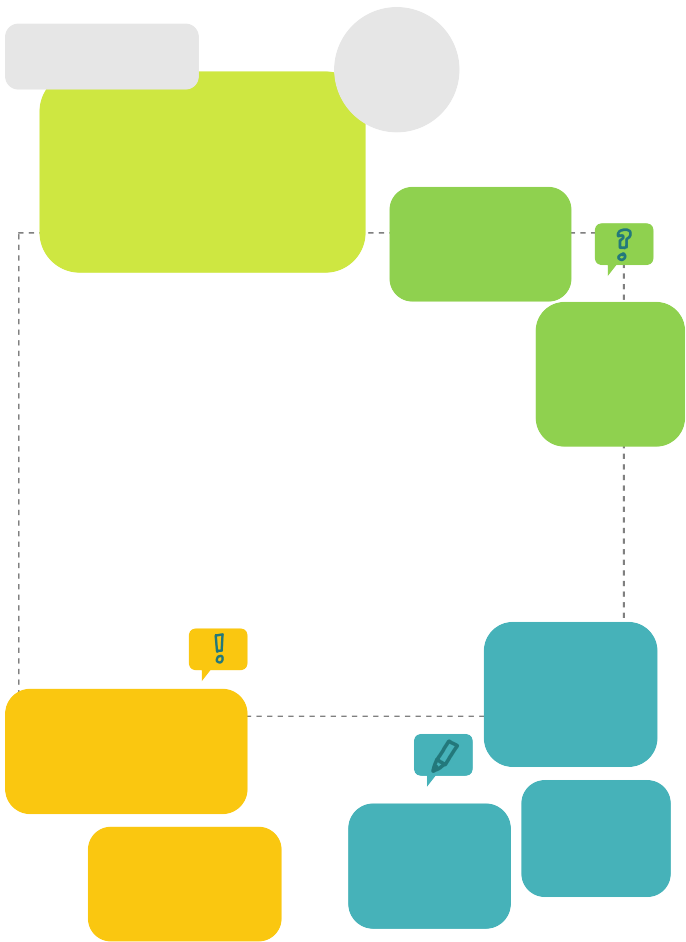
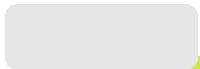Activity Example

Type of Activity
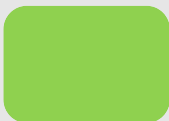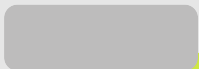
What you did

Why you did it

TIPS

Image / Screenshot / Sketch of Activity

Reflections

Digital spaces

In the context of case courses we tried out several digital tools as platforms for communication and co-creation.

Miro

Shared spaces on a class board

Private spaces for groups

Space for co-creation and synchronisation during and beyond the seminars

Zoom

Conversations over video and audio during seminars and beyond

Break out rooms in different constellations

zoom

Slack

Informal communications

Organised in channels & threads

Useful emojis:

👍 upvoting question

already answered ✔️

Meeting-place for students working on different platforms

Wonder.me

wonder

Online mingling

Gathertown

Whatsapp

Other tools / platforms used by students

Google Documents and Slides

Ushahidi

Figma

Reflections from Remote Learning

Here we gathered some insights and reflections about challenges and possibilities to learn and collaborate remotely, based on our own experiences in two courses and a Digital Collaborations Workshop organised as a follow-up to the courses.

Digital spaces allow for asynchronous interactions that can free up time during the seminars.

Additional facilitation is required for certain types of activities, e.g. sessions for reflexivity and discussions which more naturally unfold in physical spaces.

Remote education provides opportunity to rethink and reintroduce new relationships and attitudes to learning.

Teacher perspectives

It's more difficult to "feel" atmosphere in the class; lower levels of empathy in the discussions in comparison with the physical setting.

Digital spaces permits anonymous non-participation.

Some live collaborative formats are either non-transferrable or not efficient in digital form.

Documentation emerges more naturally in the digital setting and requires less effort to set up and carry out.

Shared digital tools can make it easier to collaborate with less verbal communication - material is accessible for everyone to see and adjust.

Choice on how to interact. Ability to leave, mute, have video off.

Travel time greatly reduced, hence more time to focus on other pursuits.

Student perspectives

Everyone joins the same space and same discussion at the beginning of class. Can make tutors more accessible.

Democratic participation wherever you sit.

Allows space for interacting with people who we might otherwise never have had a chance to meet. Guest lecturers can come from all over the world.

Potential change of power dynamics due to digital literacy.

Blurring spaces as many tasks can take place from the same location. Learning is embedded into daily home life. Ability to multi-task can make it hard to give something undivided attention.

Only one point of conversation (one room for all does not allow for side conversations) - reduces opportunity to network.

Easy to join activities and seminars in other places and time zones.

Shared perspectives

Can sit in very different places/countries. Students, tutors and guest lecturers do not have to travel to participate.

Possibility to rethink previous approaches to learning and collaboration. Can learn new ways of communication.

Freedom to participate from any location. Can be more comfortable and relaxed for some.