



Pressure Cooker Design Thinking

Designing solutions for complex human-centred problems

Facts & Figures

For: students of any Bachelor's or Master's programme

Mode: full-time, part-time

Credits: 1,5 – 6 ECTS credits

Duration: 2,5 – 5 days (in a row or spread out)

Language: English or Dutch

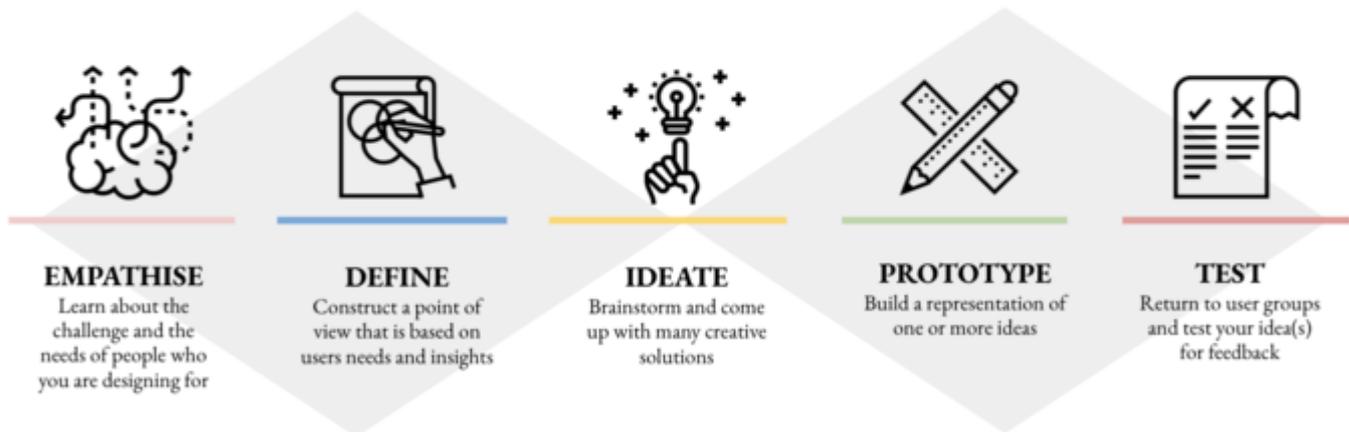
Starts: whenever needed

Keywords: transdisciplinary • unconventional learning experience • creative solution thinking • building bridges

The Pressure Cooker 'Design Thinking' is an intensive transdisciplinary learning activity aimed at connecting science and society. It offers students an authentic learning experience by providing them a real challenge from an external client. Students work on the challenge by first analyzing the problem then designing a solution and finally testing the prototype. This educational format has been successfully carried out in several courses within the UvA, both at a Bachelor's and Master's level.

It offers students a transdisciplinary and unconventional learning experience, that challenges them to achieve transferable skills, build bridges between the academic world and society, enables them to bring science into practice, enhances creative solution thinking, perform under high pressure and to implement ideas.

Design Thinking Process



Design Thinking is an activity-based method closing the gap between the academic and the social world. The aim of Design Thinking is using a design-based approach in thinking of innovations that are orientated on users and their needs. It is an inspiring way to challenge a team of students in creatively solving problems. Design Thinking places people in co-creation at the center of the challenge. This results in connecting different kinds of knowledge from research and (applied) theory to policy to local/practical knowledge.

The Pressure Cooker 'Design Thinking' gives students the opportunity to work on complex challenges in society by working on multidisciplinary and transdisciplinary practical issues. Students take a step in the field of working outside the academy and in that way reduce the gap between science and the social world.

The Pressure Cooker can be offered as part of a module or course but can also stand on its own. It is suitable for both Bachelor's and Master's students, regardless of their disciplinary background or prior knowledge.

Programme outline

The Pressure Cooker consists of running through the Design Thinking phases using specific tools offered in training and workshops, fieldwork, group work, meetings and reflection assignments. The total duration varies between 2,5 - 5 days in a row, spread out during a course. It sometimes is programmed at the start of a course as a kick-off or at the end of a course as a wrap-up.

The first day is devoted to analyzing the problem by empathizing with different target groups. The second day focusses on

Lecturer Joris Buis



"In our 'Placemaking in the City' summer course students learn to develop ideas for a specific urban setting, based on bottom-up research, mainly by interviewing residents who use that space. Students have to do this research in a short time period. The Pressure Cooker Design Thinking tool offered students a well-grounded but easy to comprehend tool to develop concrete ideas that were based on empirical research and creative ways to come up with and visualize new ideas. The Pressure Cooker connected well with Urban Planning theories on the use of local knowledge that were part of our course. In the end, students presented their findings to the stakeholders, with beautifully designed presentation posters, which sparked new discussions."

Overview of a Pressure Cooker Design Thinking programme

DAY 1	DAY 2	DAY 3	DAY 4
INTRO DT + CHALLENGES	DOING EMPHATHISE	START IDEATE PHASE	DOING PROTOTYPE
START EMPATHISE PHASE	DOING EMPHATHISE	DOING IDEATE	TEST PROTOTYPE
DOING EMPHATHISE	START DEFINE PHASE	DOING IDEATE	TRANSMISSION TO CLIENT
DOING EMPHATHISE	DOING DEFINE	START PROTOTYPE PHASE	TRANSMISSION TO CLIENT

reframing the issue based on the empathize outcomes and defining a new problem statement. From that moment on students work on solution directions by generating as many ideas as possible. During the third day the feasible ideas are designed into prototypes and presented to the client. If there is more time students also test de prototypes among the target groups to get feedback on their ideas.

Project work

Students operate in small teams of 5-6 people, all working on solutions challenged by external clients (e.g. TNO, Departments/Ministries, the City of Amsterdam, University of Amsterdam). Students lead their own project; the role of the teacher is to guide them during the process.



'Design Thinking is a well-grounded but easy to comprehend tool.'

Location

We advise an inspiring location, away from the conventional university spaces; it motivates people to think out-of-the-box, it motivates creativity, and it gives a more realistic view on bringing science into practice.



Previous Design Thinking Cookers

Summer school course

'Placemaking in the City'

Setting: International classroom, 20

Master students, cooking spread out over 4 days during a 3 weeks course.

Client: Municipality of Amsterdam East-district

Challenge: How can we initiate more liveliness at Science Park residencies to tackle social isolation of its residents during winter times?

Client: Spark Village

Challenge: How can we create ownership with a larger part of the residents of Spark Village?

Client: UvA - Outreach

Challenge: How can we trigger citizens of the adjacent neighborhoods to come explore Science Park and find added benefits?

Political Science course

'Shaping Social Change'

Setting: International classroom – 15 students (Bachelor's), cooking spread out over 3 days in a row.

Client: Ministry of Infrastructure and Water management

Challenge #1: How can we promote car sharing in the Amsterdam metropole?

Challenge #2: How can we avoid rush hour in the Amsterdam metropole?

Work together with us!

The Institute for Interdisciplinary Studies (IIS) is the expertise centre of the UvA in the field of interdisciplinary learning and teaching. Together with faculties or external clients, the IIS develops new education and implements this. You can turn to the Institute for advice about learning, teaching and the development of new educational concepts in an interdisciplinary or transdisciplinary context with the accompanying organisational and teacher professionalisation.

Following the successful Pressure Cooker pilots, we are now implementing this educational format wider within Dutch universities. We can support you in setting up a tailor-made Pressure Cooker by:

- Handing over our User Guide of the Pressure Cooker Design Thinking, this guide;
- Offering a professional training for lectures in order to support or facilitate the Pressure Cooker;
- Delivering a facilitator who will accompany and support you and your students during the process of the project;
- Matching your academic goals with the client's wishes;
- Help with finding suitable clients and issues.

Students say:

"I appreciated being able to actually practice the first few stages of placemaking as opposed to simply learning the theory. Further, I appreciated the experience of getting to work with real stakeholders."

"I found it very interesting that I could listen to many different people and could see the neighbourhoods of Amsterdam with explanations of learnt people. The Design Thinking Challenge was taught through interactions with different people and excursions and not just theory."

Contact

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