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DESIGN THINKING IN EDUCATION

A Master Class at the University of Groningen

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"I am ridiculously bad at imitating animal sounds."

"It doesn't show, but deep down I am a big nerd. I love love love Star Trek!"

"I am only wearing black until they make something darker."

"I hate shoes."

"I really, really like shoes."

"I still think I can grow taller or at least become Batman."
“Julie and Queen Juliana share more than their first names.”

“Tamie once had her soul painted as part of a job interview. She did not get the job.”
JOINING THE MASTER CLASS

On a Post-It Note write:
1. Your Name
2. Number of years teaching
3. Fun fact
JOINING THE MASTER CLASS
MINDSETS

Design thinking mindsets are ways of observing and discovering the world through a designer’s eyes.

**OPTIMISM:** all problems are solvable

**EMBRACE AMBIGUITY/BIAS FOR ACTION:** avoiding paralysis by taking action

**EMPATHY:** walking in someone else’s shoes and feeling the toes pinch

**HUMAN-CENTEREDNESS:** putting people’s needs at the center
LEARNING OUTCOMES

After the master class, participants will be able to:

• Explain what design thinking is and isn’t.
• Create a prototypical solution to a learning or education problem using the design thinking process.
• Identify how design thinking could be incorporated into a classroom or learning community.
• Recognize misconceptions about design thinking.
• Create connections for developing a learning community around design thinking in education.
GUIDING QUESTION

What is design thinking?
DEFINING DESIGN THINKING

Draw a learning space for 25 people.
DEFINING DESIGN THINKING

“Last Saturday I read about Brexit news via Twitter while I was drinking a coffee in a popular Groningen cafe.”
“I learned about an out-of-school initiative (Studio Moio) that refuses to label young people who are on the edge of dropping out of the school system as 'failures', 'vulnerable', 'marginalized', in NEED, etc. Instead, these young people are addressed as potential innovators of the social and educational system.

I learned about this initiative when I was laying down on my couch because of a flu and zapped around the TV channels.”
DEFINING DESIGN THINKING

“I have a friend who is a painter. His studio is across my office. Many times I go by to say 'hi' and we talk about painting. I have learned some things about painting and I have learned some of the personal stories behind his paintings.”
DEFINING DESIGN THINKING

“I learned about the reversal or subversion of philosophical ideas through a computer game called Nier Automata.”
DEFINING DESIGN THINKING

“I took a motorbike tour across a volcano and realized that this mode of travel gives an image of the landscape that alternative modes can’t give.”
WHY DESIGN THINKING?

Why is design thinking so popular in education?
DEFINING DESIGN THINKING

Creatively solving problems using insights about human needs, desires, and pain points – that is, engaging in human-centered design.
HUMAN-CENTERED DESIGN

CASE STUDY: Tesco Virtual Grocery Store
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HUMAN-CENTERED DESIGN

CASE STUDY: Learn Lab by Steelcase
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CASE STUDY: Learn Lab by Steelcase
HUMAN-CENTERED DESIGN

CASE STUDY: The Listening Table by the NY Times R&D Lab
HUMAN-CENTERED DESIGN

CASE STUDY: The Listening Table by the NY Times R&D Lab
DESIGN THINKING

A specific methodology for human-centered creative problem solving, loosely defined, not firmly established.

3 phases, 6 design strategies

**INSPIRATION:** (think empathize define)

**IDEATION:** (ideate prototype)

**IMPLEMENTATION:** (test)
DESIGN THINKING

A specific methodology for human-centered creative problem solving, loosely defined, not firmly established.

6 design strategies

**THINK:** activate design mindset

**EMPATHIZE:** understand the human needs involved

**DEFINE:** re-frame and define the problem in human-centric ways

**IDEATE:** create many ideas in ideation sessions

**PROTOTYPE:** adopt a hands-on approach

**TEST:** develop a prototype/solution to the problem
What is a design sprint? Why are we doing it?
DESIGN SPRINT

What to expect on the way to the unexpected:

• Impossibly fast-paced (time-boxing)
• Ambiguity but with purpose
• Learning through imperfection
• Time for telling at the end

“Don’t think of it as failure, think of it as designing experiments through which you’re going to learn.” —Tim Brown, CEO, IDEO
Problem: As an educator, you are responsible for facilitating a meaningful learning experience in learning environments and spaces.

People spend many hours each year, and thousands of hours over a lifetime, sitting in learning spaces. Some of these spaces are transformational and some are terrible. Sometimes learning spaces are something else or in between these two extremes.

**DESIGN CHALLENGE:** Design the learning space of the future
DESIGN SPRINT

DESIGN STRATEGY: THINK

Purpose: Activate the mindset of the designer

• 30 Circles Challenge
DESIGN SPRINT

DESIGN STRATEGY: EMPATHIZE

Purpose: Engage in human-centered design research

• Empathy Interview
• The 5 Whys
DESIGN SPRINT

DESIGN STRATEGY: DEFINE

Purpose: To define the problem that needs solving

• Problem Statement
• How Might We?
DESIGN SPRINT

DESIGN STRATEGY: IDEATE

Purpose: Engage in divergent thinking to generate ideas

- Post-it Challenge
- Mash-Up
- Draw It
- Get Feedback: I like, I wonder, what if?
- Determine what to prototype
DESIGN SPRINT

DESIGN STRATEGY: PROTOTYPE

Purpose: Think through your hands

• Build
• Iterate
DESIGN SPRINT

DESIGN STRATEGY: TEST

Purpose: Answer a question about your prototype

• Get Feedback: I like, I wonder, what if?
• Showcase
WHAT IS DESIGN THINKING?

WHAT IT IS NOT

Design thinking is not easy to learn or apply
Design thinking is not the same as being a designer
Design thinking is not something that has to be applied as a “bundle”
Design thinking is not the right methodology for solving all problems
DESIGN THINKING

A specific methodology for human-centered creative problem solving, loosely defined, not firmly established.

3 phases, 6 design strategies

INSPIRATION: (think empathize define)
IDEATION: (ideate prototype)
IMPLEMENTATION: (test)
HOW WE INCORPORATE DESIGN THINKING @ UNIVERSITY OF TEXAS AT AUSTIN
“Have I made a real connection?”

“Will the students be inspired: will they cherish the process of acquiring knowledge so that they will continue looking for it after the class?”

“Are human connections being made? Are we remembering that education is first and foremost about people, and educating our students in a way that develops these social competencies.”
How to activate them in class and how to awake in them a sense of ownership towards their course

How to facilitate it, how to make the process of acquiring knowledge exciting and relatable.

Employability of students.

"Do they remember? Does the course help on a practical level?"