

JAN 29, 2019

DESIGN THINKING IN EDUCATION

A Master Class at the University of Groningen

JULIE SCHELL

Executive Director of Learning Design
Assistant Professor of Practice
School of Design and Creative Technologies
The University of Texas at Austin

TAMIE GLASS

Associate Professor
School of Architecture
School of Design and Creative Technologies
The University of Texas at Austin

JOINING THE MASTER CLASS

“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.”

JOINING THE MASTER CLASS

“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.”

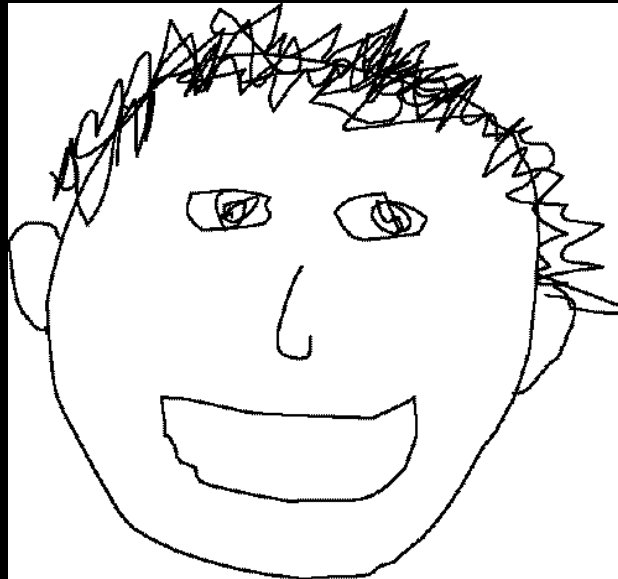


JOINING THE MASTER CLASS

On a Post-It Note write:

1. Your Name
2. Number of years teaching
3. Fun fact

JOINING THE MASTER CLASS



MINDSETS

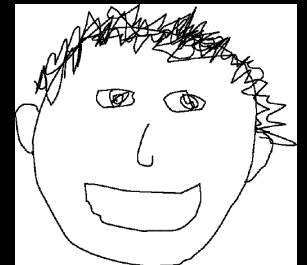
Design thinking mindsets are ways of observing and discovering the world through a designer's eyes.

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:

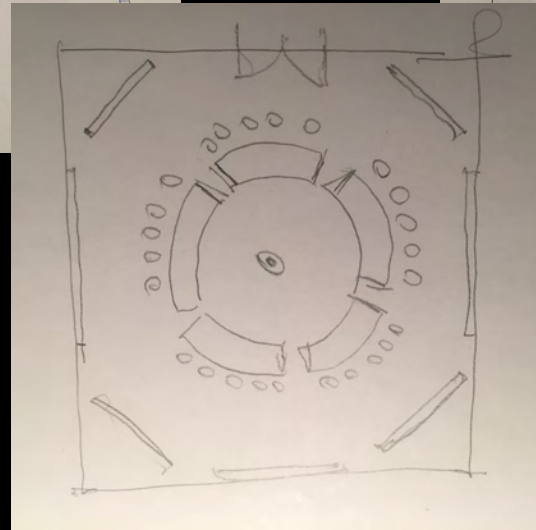
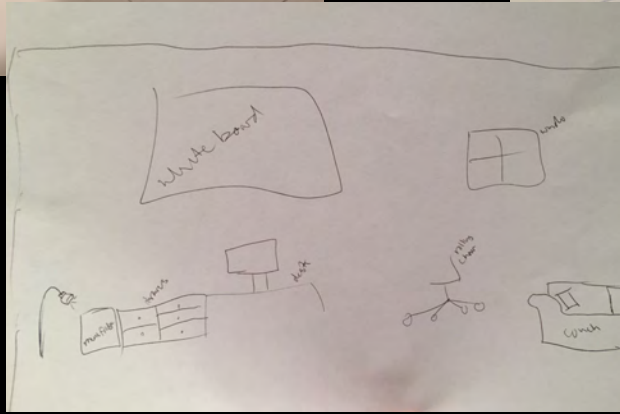
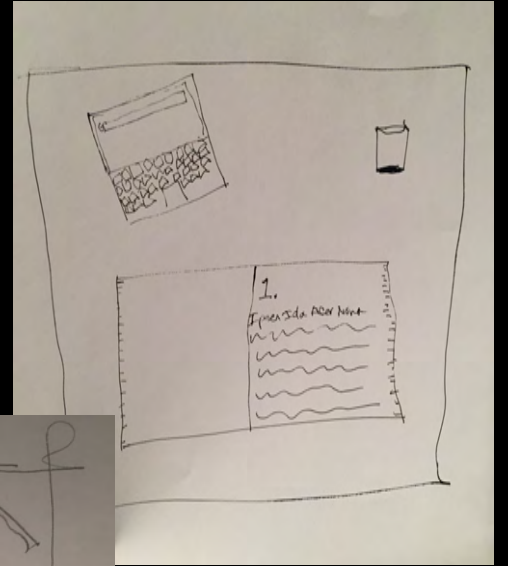
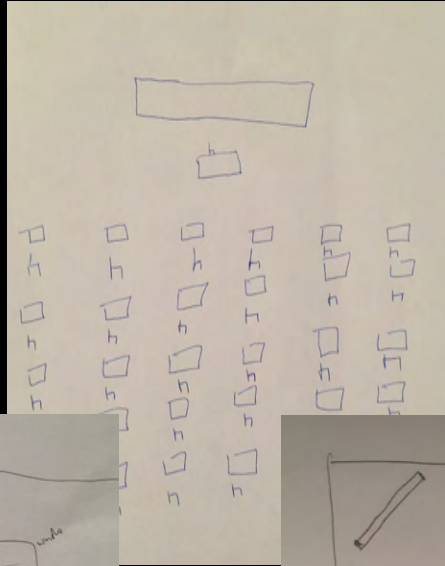
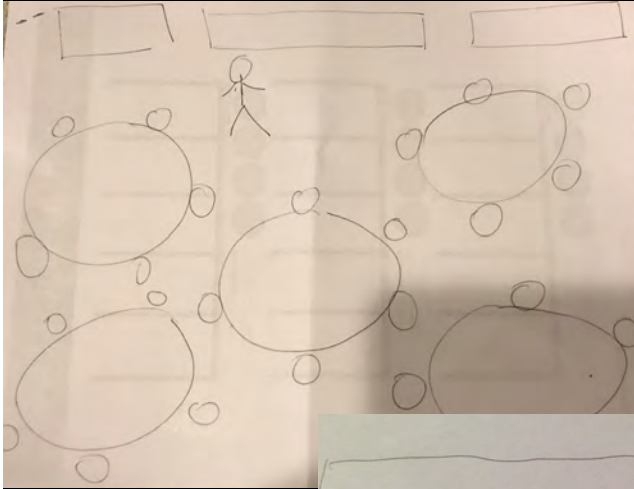
- Explain what design thinking is and isn't.
- Create a prototypical solution to a learning or education problem using the design thinking process.
- Identify how design thinking could be incorporated into a classroom or learning community.
- Recognize misconceptions about design thinking.
- Create connections 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.”

DEFINING DESIGN THINKING

“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



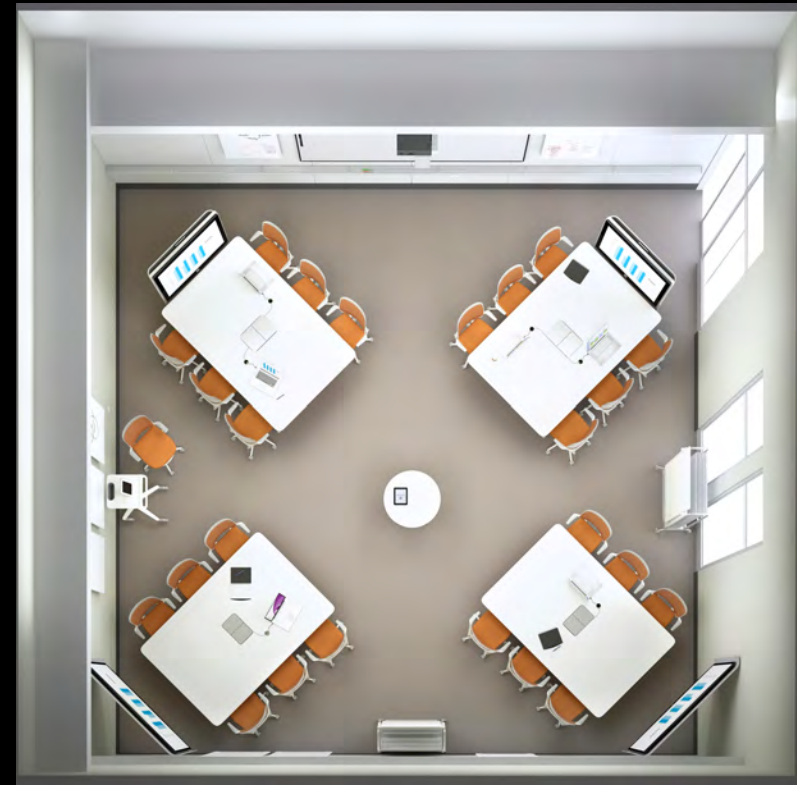


CASE STUDY: Tesco Virtual Grocery Store

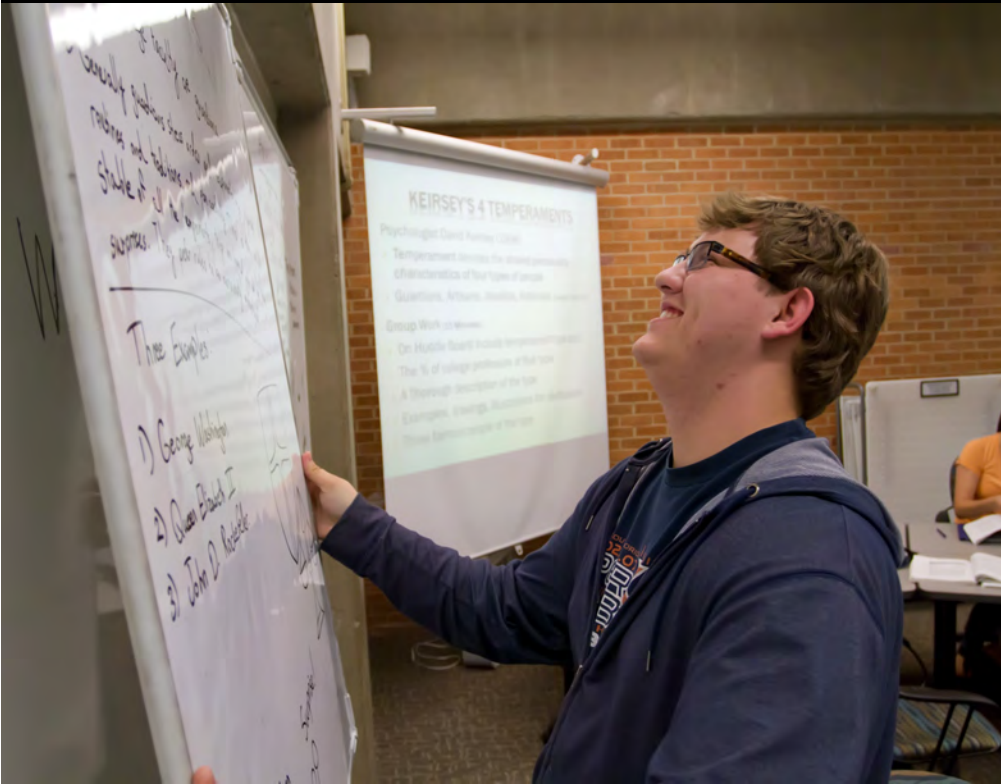
HUMAN-CENTERED DESIGN

CASE STUDY: Learn Lab by Steelcase





CASE STUDY: Learn Lab by Steelcase



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

DESIGN SPRINT

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

DESIGN SPRINT

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



DESIGN THINKING MASTER CLASS @UG

“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.”*

DESIGN THINKING MASTER CLASS @UG

“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?”