fast paced
builds and nurtures creative capacity
increases comfort level with ambiguity
intervention for perfectionism
for everyone
playful

Why I like design thinking...

inspires risk taking + wild ideas
bias toward action

process for non-algorithmic problem solving
an antidote for boring meetings

common platform for collaboration
Design Thinking in Classroom

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Mission Statement

The Kaneb Center supports the pursuit of teaching excellence by stimulating scholarly reflection and conversation about teaching and encouraging the adoption of practices that enhance learning.
Goals

After successfully completing this workshop participants will be able to:

- experience the Design Thinking Process
- build a toolkit for using the various design thinking techniques
- apply design thinking methodology

Agenda

I. Overview of Design Thinking
II. 5 steps in design thinking process
III. Application of design thinking in education

***Questions Welcome Along the Way***
Design Thinking Process

- EMPATHIZE
- DEFINE
- IDEATE
- PROTOTYPE
- TEST
Our Design Challenge

How might we DESIGN a personalized DASHBOARD for yourself as student, TA, or instructor in Sakai (our learning management system)?

What information, tools, or views of data would you like to see?
Design a personalized dashboard for yourself as student, TA, or instructor in Sakai

Sketch your best idea here
Empathy

When you **FEEL** what other person is feeling

When you can **MIRROR** their thoughts, their expressions or their attitudes

**HOW to empathize?**

1. Observe
2. Engage
3. Watch and Listen
Design a **USEFUL** and **MEANINGFUL** dashboard for your partner. Start by gaining **EMPATHY**

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| • Ask your partner as to what they want to see in their dashboard  
  • Ask questions  
  • Dig deeper for specific stories  
  (*Notes/Sketches) | What stood out to you? What were you curious about?  
  (*Notes/Sketches) |

**Key Insights**  
(*Notes/Sketches)
Define

DEFINE → POINT OF VIEW

POV: Explicit expression of the problem you are striving to address

defines the RIGHT challenge to address

HOW to define?
1. Understand USER
2. Synthesize NEEDS
3. Express INSIGHTS
Articulate your current **POINT OF VIEW STATEMENT**

**Inventory of possible NEEDS**
- Things they are trying to do *(needs)*
  - *use verbs*

**Ways they want to feel *(insights/meaning)***
- *make inferences*

**Define a PROBLEM STATEMENT**
- NEEDS a way
to *(user's needs)*
in a way that makes them FEEL

*(insights/meaning)*

*(my problem statement)*
“It’s not about coming up with the ‘right’ idea, it’s about generating the broadest range of possibilities.”

The Rules

• Defer judgement
• Build on the ideas of others
• Stay focused on the topic
• One conversation at the time
• Encourage wild ideas
• Be visual
• Go for quantity over quality
• Evaluate afterwards
Generate alternatives to test

Sketch 3-5 radical ideas to meet your user’s needs
Problem Statement: ________________________________

SHARE your solution and capture FEEDBACK


Prototype

“If a picture is worth a thousand words, a prototype is worth a thousand pictures”

HOW to prototype?
1. Start building
2. Build with the user in mind
3. Don’t spend too long on one prototype
BUILD your solution
What new information do you have about how your SOLUTION addresses the NEED?

What new information do you have about user’s NEED?
SHARE your solution and get **FEEDBACK**

<table>
<thead>
<tr>
<th>What worked</th>
<th>What could be improved</th>
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<th>Questions</th>
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There are a lot of problems in education today...but each of these concerns can be seen as opportunities for you to design new, improved solutions for your classroom, university and community!!!
DESIGN THINKING FOR EDUCATORS

Teacher as Designer

Designer as Teacher

FOR TEACHERS AS DESIGNERS
- More creative confidence
- Better project management processes
- Stronger collaborative culture
- Strategic decision-making

FOR BOTH
- Increased responsiveness to teacher and student needs
- Prioritizing and evolving effective teaching and learning

FOR STUDENTS
- Greater student engagement
- Increased school satisfaction
- New ways to connect with students
- More school advocates and loyalists

Source: design_thinking_playbook_by_Norman_Tran
Identify a Challenge
(a) The “How Might We” (HMW) question
(b) Values/Constraints/Goals
(c) Problem statement

Create a Design Plan
- Day?
- Week?
- Months?

Use Design Thinking Process
- Empathy
- Define
- Ideate
- Prototype
- Test

3
(1) Identify a challenge

Dreams/Gripes/Things that could be better

How might we...(HMW)

Guidelines for a good problem statement

Source: design_thinking_playbook_by_Norman_Trang
(2) Create a plan

### Design Plan
- In a day?
- In a week or two?
- Spread out over months?

### Checklist
To help me with planning, I will engage:

- [ ]
- [ ]
- [ ]

### Sketch your timeline

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Source: design_thinking_playbook_by_Norman_Tran
(3) Dive into Design Thinking
References

1. **An Introduction to Design Thinking Process Guide** by Hasso Plattner Institute of Design at Stanford
2. **Design Thinking for Educators** from IDEO, offers language and activities specific to K-12 educators (includes a PDF toolkit for teachers)
3. **Design Thinking Playbook** - written and designed by Norman Tran from Stanford d.school
4. **An Educator’s guide to design thinking** - a collection of curriculum created by the K-12 Lab at the Stanford design school

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