Introduction to practice spaces
Class outline

- **Part 0: End-Of-Unit Survey Unit 1**
- **Part 1: Try out some practice spaces**
  - A lighting-round playtest of Teaching Systems Lab (TSL) practice spaces: Swipe Right for CS, Teacher Moments, and Baldermath
- **Part 2: Jigsaw Activity**
  - We will breaks into groups to do a close examination of the readings.
- **Part 3: Introducing Mini-Project #2**
- **Part 4: Work time**
  - Teams will have time to work on outlining their proposed practice space for the mini-project.
Lighting round
playtest
Activity: Instructions for playtest lighting round

- You will have 8 minutes to experience and reflect on each practice space
  - Group 1: Swipe Right, Teacher Moments, Baldermath
  - Group 2: Teacher Moments, Baldermath, Swipe Right
  - Group 3: Baldermath, Swipe Right, Teacher Moments

- When the alarm goes off switch to the next activity
**Activity: Instructions for playtest lighting round**

<table>
<thead>
<tr>
<th>Teacher Moments</th>
<th>Swipe Right for CS</th>
<th>Baldermath</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Order:</strong> 1, 2, 3</td>
<td><strong>Order:</strong> 2, 3, 1</td>
<td><strong>Order:</strong> 3, 2, 1</td>
</tr>
<tr>
<td><strong>How to play:</strong> Computer or phone</td>
<td><strong>How to play:</strong> Computer or phone (better)</td>
<td><strong>How to play:</strong> Come to the front of the room.</td>
</tr>
<tr>
<td><strong>Note:</strong> You can choose either scenario. Use headphones for the Turner Scenario. You <strong>do not need to respond out loud</strong> if you are not comfortable.</td>
<td><strong>Note:</strong> This is a demo link so you will only be able to see your responses in Round 3.</td>
<td><strong>Note:</strong> Bring a pen or pencil with you.</td>
</tr>
</tbody>
</table>
Design Journal Reflection

In your design journals respond to the following prompts about Swipe Right for CS, Teacher Moments, and Baldermath? You have 5 minutes.

1. What would you describe as the learning objective of each practice space?
2. What questions do you have about each practice space?
JIGSAW ACTIVITY
Activity: Close Examination of the Readings

Part 1: Count-off by 4s and we break off into four groups. Each group will be assigned a reading to answer the following question:

1. Based on the readings, how can practice/simulations be used to support learning?
2. Describe specific design elements within a practice or simulated setting that help users learn.

Discuss first as a group

Group 1: “Decomposition of Practice: The Naming of the Parts” (Grossman et al., 2009) p.2068-2076
Group 2: “Approximating Practice in Professional Education: Learning to Kayak on Calm Waters” (Grossman et al., 2009) p.2076-2091
Group 3: “Findings” (Dotger & Ashby, 2014) p.121-126
Group 4: Whole article (Robinson, Jahanian & Reich, 2018)
Activity: Close examination of the readings

Part 1 Share Out:
1. Based on the readings, how can practice/simulations be used to support learning?
2. Describe specific design elements within a practice or simulated setting that help users learn.
Activity: Close Examination of the Readings

Part 2: Count-off by 4s again and form new groups. In your group answer the following question:

What design elements from the readings are present in Swipe Right for CS, Teacher Moments, and Baldermath?

Discuss first as a group
**Activity: Close Examination of the Readings**

**Part 2 Share Out:** What design elements from the readings are present in Swipe Right for CS, Teacher Moments, and Baldermath?
Introduction to Designing Teacher Practice Spaces
Design Elements of a Teacher Practice Space

- Play Mechanics
- Learning Objectives
- Feedback and Reflection
- Data and Analytics

Source: Reich et al. (2018)
Worked example: Swipe right for CS

Play Mechanics: Swiping apps (e.g., Tinder)

Learning Objectives: Support high school CS teachers in developing communication skills for actively recruiting students into computer science

Feedback and Reflection: During Round 3, participants view their workshop’s responses and reflect on what arguments were most effective.

Data and Analytics: Game records responses and these are reported back in Round 3.
**Worked example: Swipe right for CS**

<table>
<thead>
<tr>
<th></th>
<th>Brad</th>
<th>Carlos</th>
<th>Chang</th>
<th>Gabriella</th>
<th>Keisha</th>
<th>Lamar</th>
<th>Mei</th>
<th>Meredith</th>
<th>Raj</th>
<th>Sonali</th>
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**Note:** The chart highlights the top two names by profile in orange and the remaining names in purple.
Things to consider when building a practice space

● **Who** is going to be using this practice space?
● In **what** setting is this going to occur?
● **How** much time do you have?
● **What** other supports will occur outside of the practice space?
Group formation
Break - please return in 10 minutes
MINI PROJECT 2
OVERVIEW
Mini Project #2: Objective

Goal: Design a teacher practice space for an educational setting of your choosing. Must be built for a specific setting and user.

Does not need to be K-12 education

Must be designed for teachers and not students

Unit 2 Rubric
Mini Project #2: Example Topics from TSL Work

- Learning to recognize bias against certain groups of students
- Preparing to lead discussions on politically controversial topics
- Responding appropriately to students who have experienced trauma
- Recognizing and responding to students’ scientific misconceptions
- Analyzing data on class compositions for evidence of bias
Mini Project #2: Other Requirement

- Can use technology but it is not required
- Has to be be playable – even if it’s a paper prototype or a slide deck
- If reflection, feedback, and analytics are not built into the practice space you will need to describe how they will be supported by other learning experiences outside of the practice space (e.g., reflection exercises)
WORK TIME
MINI-PROJECT #2: BRAINSTORM

- Brainstorm ideas for your mini project #2
- Respond to the prompt in your design journal (due by Friday 5 PM)
  - (1) the problem of practice your practice space addresses, (2) the intended user, (3) the proposed setting, and (4) skills you want the user to practice.
Preparing for the next class
Mini Project #2: Timeline

- **By this Friday at 5PM:** You should respond in your design journal with the (1) the problem of practice your practice space addresses, (2) the intended user, (3) the proposed setting, and (4) skills you want the user to practice.

- **Next week:** Prototype of your proposed practice space (e.g., examples screenshots, drawings, descriptions of game play)

- **Final project:** Playable prototype to playtest in class.
Due next week: mini-project #2 prototype

● Homework
  ○ Reading on design considerations when creating practice spaces
  ○ Finish design journal entry
  ○ Need help? Let me know!

● Next week’s class
  ○ Learning more about designing practice spaces
  ○ Share out your practice space prototype with the rest of the class
  ○ In-class work on mini-projects