

CMS.594/894- EDUCATION

TECHNOLOGY STUDIO



SPRING 2019



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 break 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

Teacher Moments

Order: 1, 2, 3

How to play: Computer or phone

Link:

AP is not for me:

bit.ly/aptest-demo

Turner Scenario:

bit.ly/turnerscenario-demo

Note: You can choose either scenario. Use headphones for the Turner Scenario. You **do not need to respond out loud** if you are not comfortable.

Swipe Right for CS

Order: 2, 3, 1

How to play: Computer or phone (better)

Link:

bit.ly/swiperight-demo

Note: This is a demo link so you will only be able to see your responses in Round 3.

Baldermath

Order: 3, 2, 1

How to play: Come to the front of the room.

Link: None, instructions can be found [here](#)

Note: Bring a pen or pencil with you.

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, Jāhanian & 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?

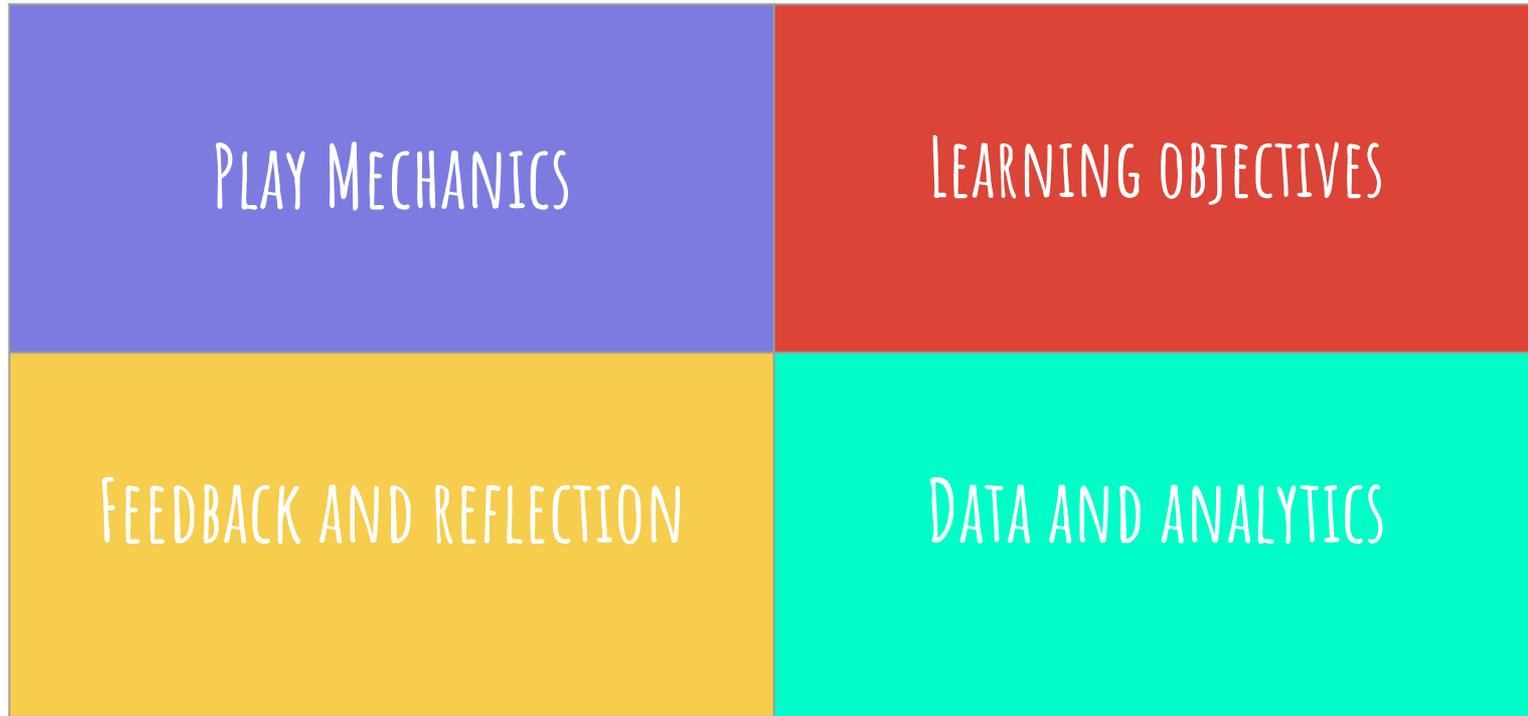
Discuss **first** as a group

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



WORKED EXAMPLE: SWIPE RIGHT FOR CS

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

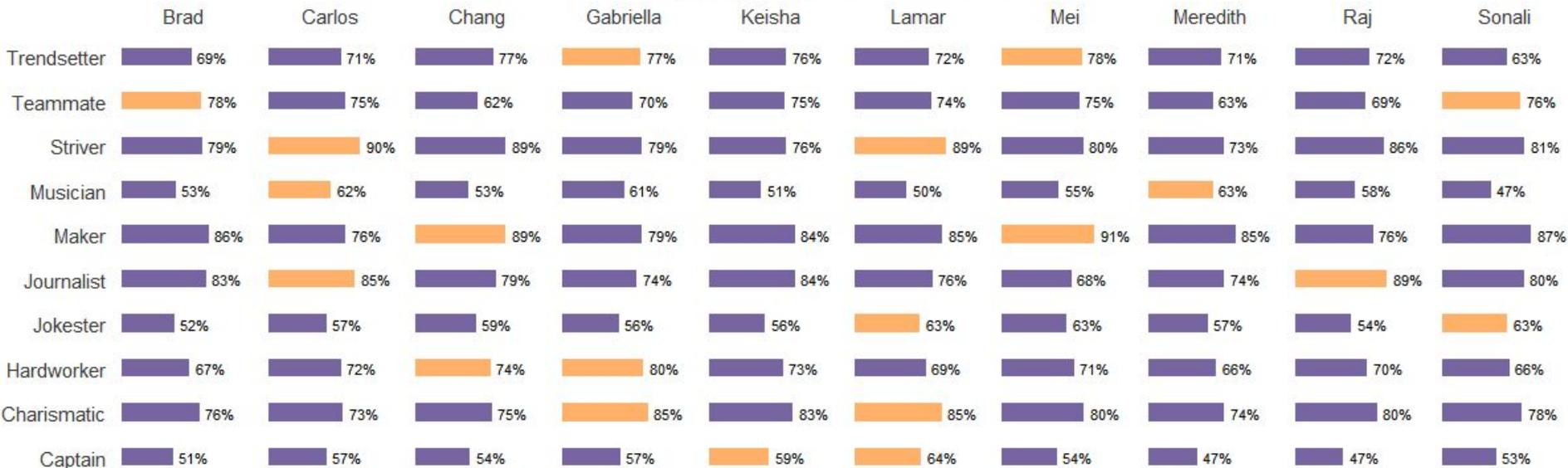
Learning Objectives: Support high school CS teachers in developing communication skills for actively recruiting students into computer science

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

Swipe Rights by Profile Names/Profiles



■ Top two names by profile
■ Remaining names

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

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CMS.594/CMS.894 Education Technology Studio
Spring 2019

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