

**Turn Up the Volume on Teacher Candidates'  
Voices and Teaching Experiences:  
Integrating digital equitable practices in  
MultiProgram Clinical Preparation**

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representing team: Dominika McPartland, Alfonso Perez, Sean Turner**

# Agenda

- **Intros and Background**
- **Purpose**
- **Research Questions**
- **Methods**
- **Timeline**
- **Significance**

# Our Team



Virginia  
Gryta

Christine  
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# Purpose and Focus

Our study aims to promote computational thinking and digital equitable literacies (CTDL) in teacher preparation programs. We focused on how teacher candidates (TCs) enrolled in clinically rich courses, respond to and experience learning about CTDL in the context of coursework infusion and co-constructed play experiences.

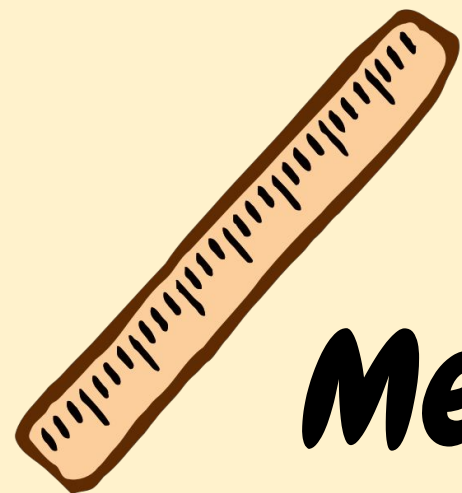
**RQ1: Where do our different disciplines\* intersect around teacher education and computational thinking (e.g. Accessibility) for more equitable practices?**

**\*(Early Childhood, TESOL, Bilingual Ed, Special Ed)**



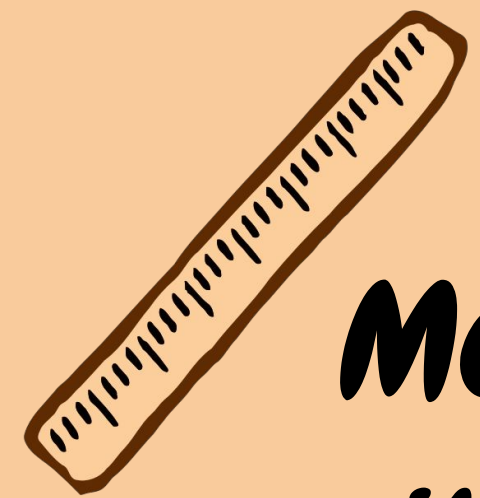
***Measured by: Literature Review and Focus Group***

**RQ2: How does utilizing and creating artifacts emphasizing digital equitable practices INFLUENCE teacher candidates' INTEREST in Computational Thinking and Digital Literacy(CTDL)?**



*Measured by our "Play Fair" in Aug '24, which will collect & amplify student voice on this topic.*

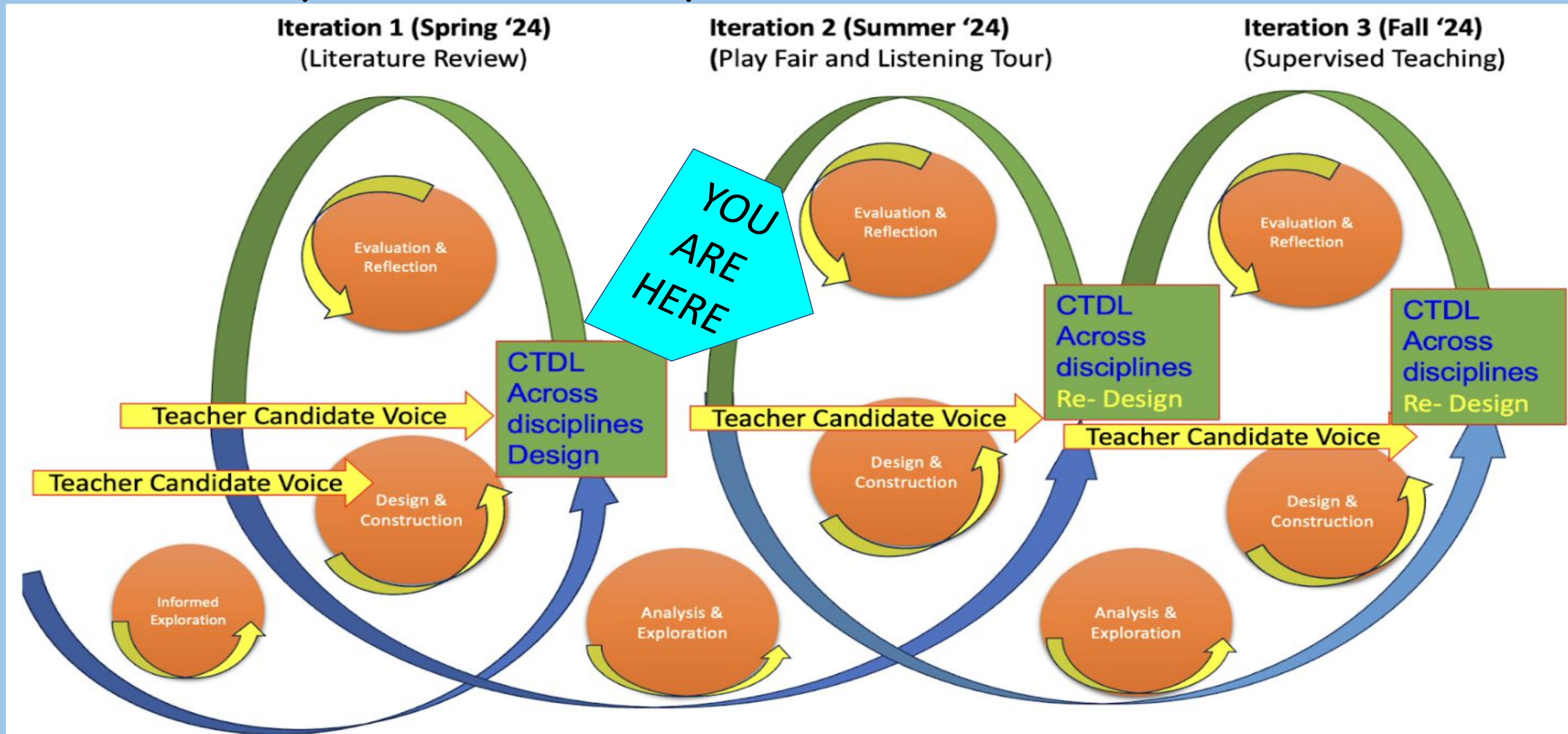
**RQ3: What are TC's perceptions of the value added of tinkering with CTDL artifacts in their future practice?**



*Measured by our "Play Fair" in Aug '24, which will collect & amplify student voice on this topic.*

# Methods

- McKenney and Reeves' (2020) educational design research (EDR) approach
  - Three-tier plan of action: (a) exploration, (b) construction, and (c) reflection.





# Methods

- **RQ 1. Systematic literature review /Faculty Focus Group**

- **Existing data of student perceptions and values captured naturalistically in our various courses.**
- **Retroactive TC work, student surveys, a systematic interactive literature review, and a faculty focus group**
- **Qualitative discourse analysis– Dedoose (Cite Equity Design principles/In Vivo)**

# Methods

- **RQ 2. Play Fair data**
  - **Pre- assessment, Surveys (N=36), selected interviews (n=10)**
    - **Qualitative (SPSS) and Quantitative Analysis (Dedoose)**
- **RQ 3. PLay Fair Focus Groups**
  - **Qualitative discourse analysis- Dedoose**



# TIMELINE

Artifact Creation (Sum '23)

Artifact Revision and/or Implementation/Feedback (Fall '23 & Spr '24)

Multi-disciplinary meetings to hone our focus (Fall '23)

Grant Proposal approved (early Spr '24)

Literature Review (throughout Spring – final stages early Sum '24)

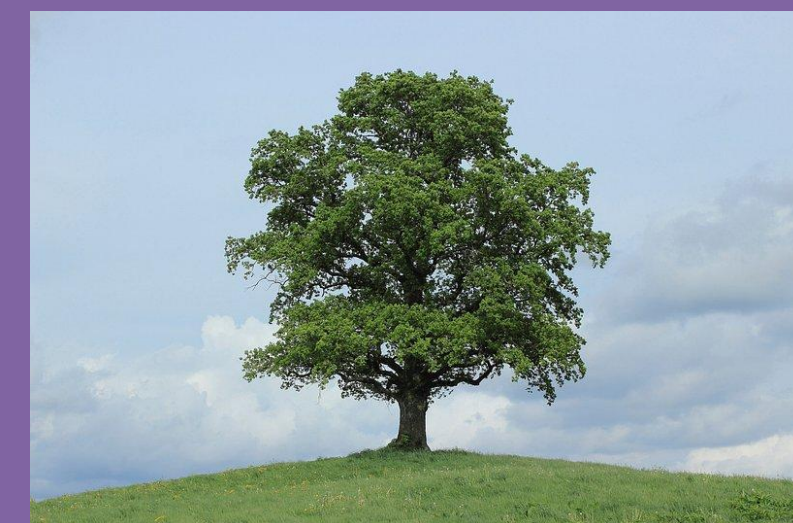
Multi-disciplinary Focus Group (June '24)

Data analysis – from student surveys & focus group discussions

Focus Group Panel (July '24)

**Planning for Play Fair (July '24) (NOW)**

Play Fair (August '24)



# Preliminary Findings

Themes of **resistance**, **preparing**, **collaboration**, disposition, **multiple entry points**, self-efficacy, problems and solutions of integration, **emotions in tinkering and play**, **co-learning and co-construction**.... are “a first wash” through our current data...

Preparing for our play fair?

**Time to tinker**

**The importance of play**

**An enjoyable experience meant to continue**



**STILL FINDING IT**



**Virginia Gryta**  
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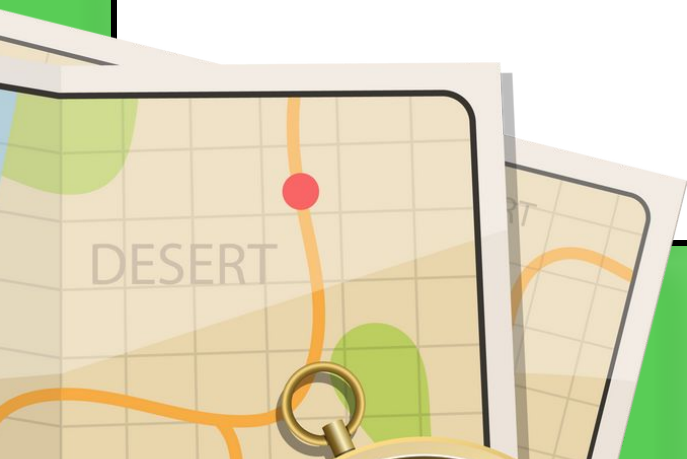
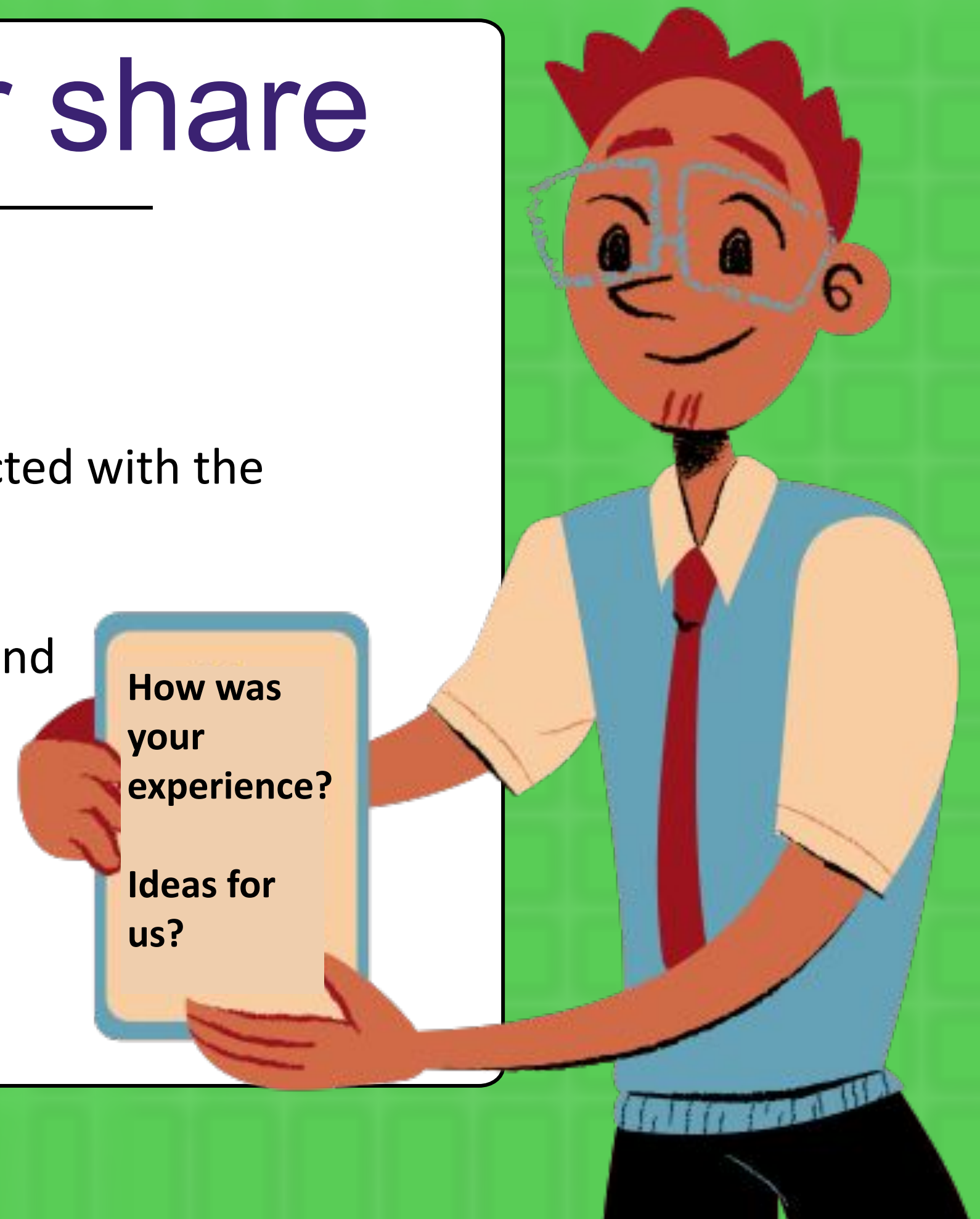


# ● Other researcher share

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Caterina Almendral 7.10.24

- Transcript and video modalities used
- Initial preference (transcript) was not how I interacted with the material
- Started with transcript but shifted to video
  - Used the audio from the video as taking notes and turned to video to check some of the points made (what was happening in scratch/coding)



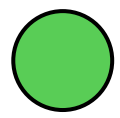
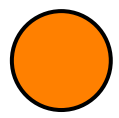
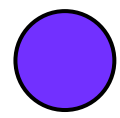


# **HOW DID YOU FIND THE EXPERIENCE?**

**1. What method of analysis did you decide?**

**How did you work and why?**

**2. Implications for our next steps**



# Share

Your group names: Sara 7.10.24

I used the video, and it helped me think about the content of what she was saying

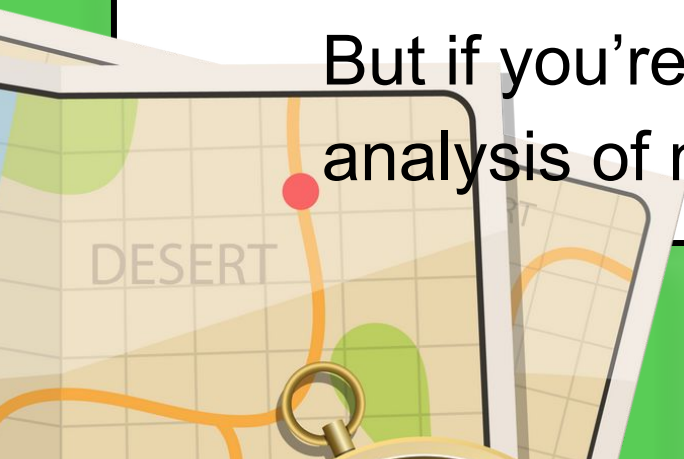
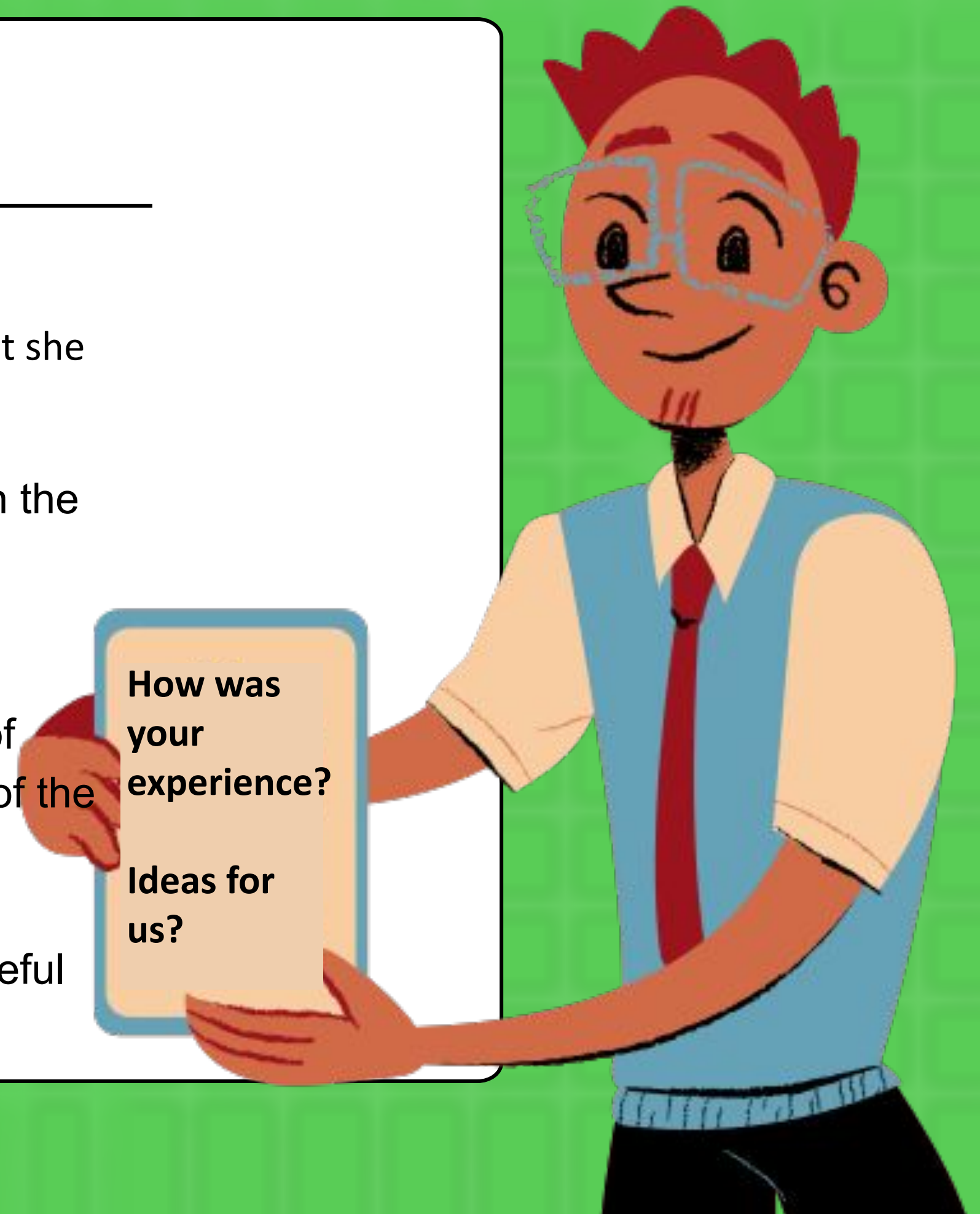
The modalities you pick to do your analysis might depend on the kind of analysis you want to do.

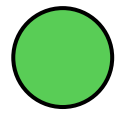
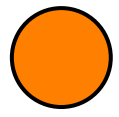
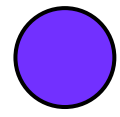
Are you interested in the ways people present their work to colleagues? In that case, attending to the visuals, the style of speech, the tone etc would be important, and thus using all of the modalities.

But if you're interested more in the content, then doing a careful analysis of modalities might be less important.

**How was your experience?**

**Ideas for us?**





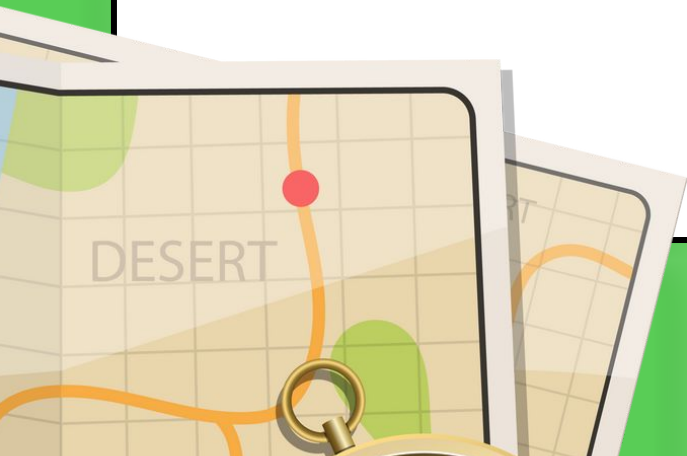
# Share

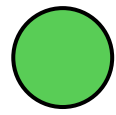
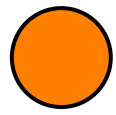
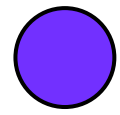
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Your group names: Ryan 7.10.24

I watched the video while following the transcript.

In general, I prefer to just work off of a transcript, but I am only able to do that well if I was part of the original interview. In this case, the transcript sufficiently sparks my memory of the interview.





# Share

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Your group names: Michelle 7.10.24

watched the video first and then went back to the transcript.

**Something that stood out to me was..**

The teacher candidates' anxiety around coding.

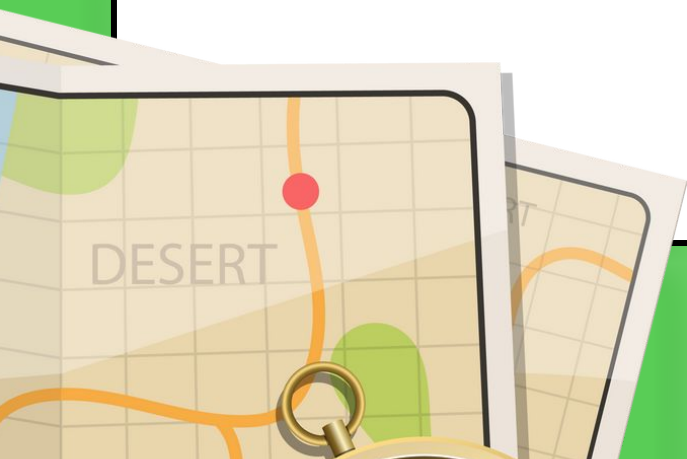
**It was meaningful to me because..**

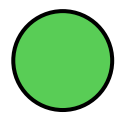
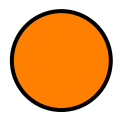
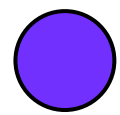
It resonates with me because I see it with my own students.

**Themes or codes I would call this include...**

I think we want our students to understand that this is a process - and that it's iterative.

The fact that Virginia recognizes that students need to understand her process - and understand that she is learning, too....(lots more to say here...so interesting!)





# Share

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Your group names: Melissa 7.10.24

The narration of the visual content.

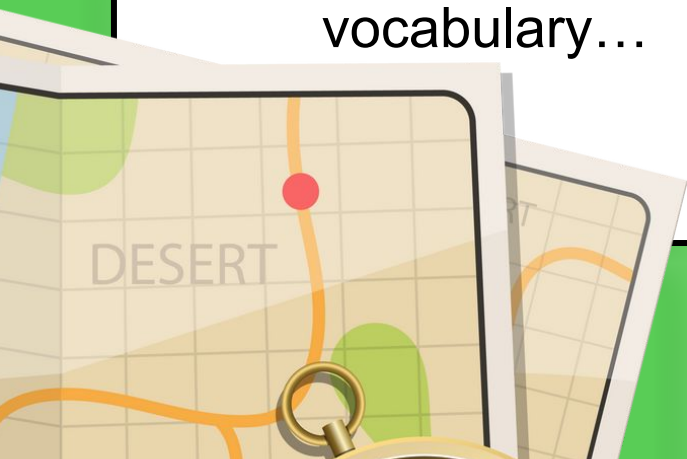
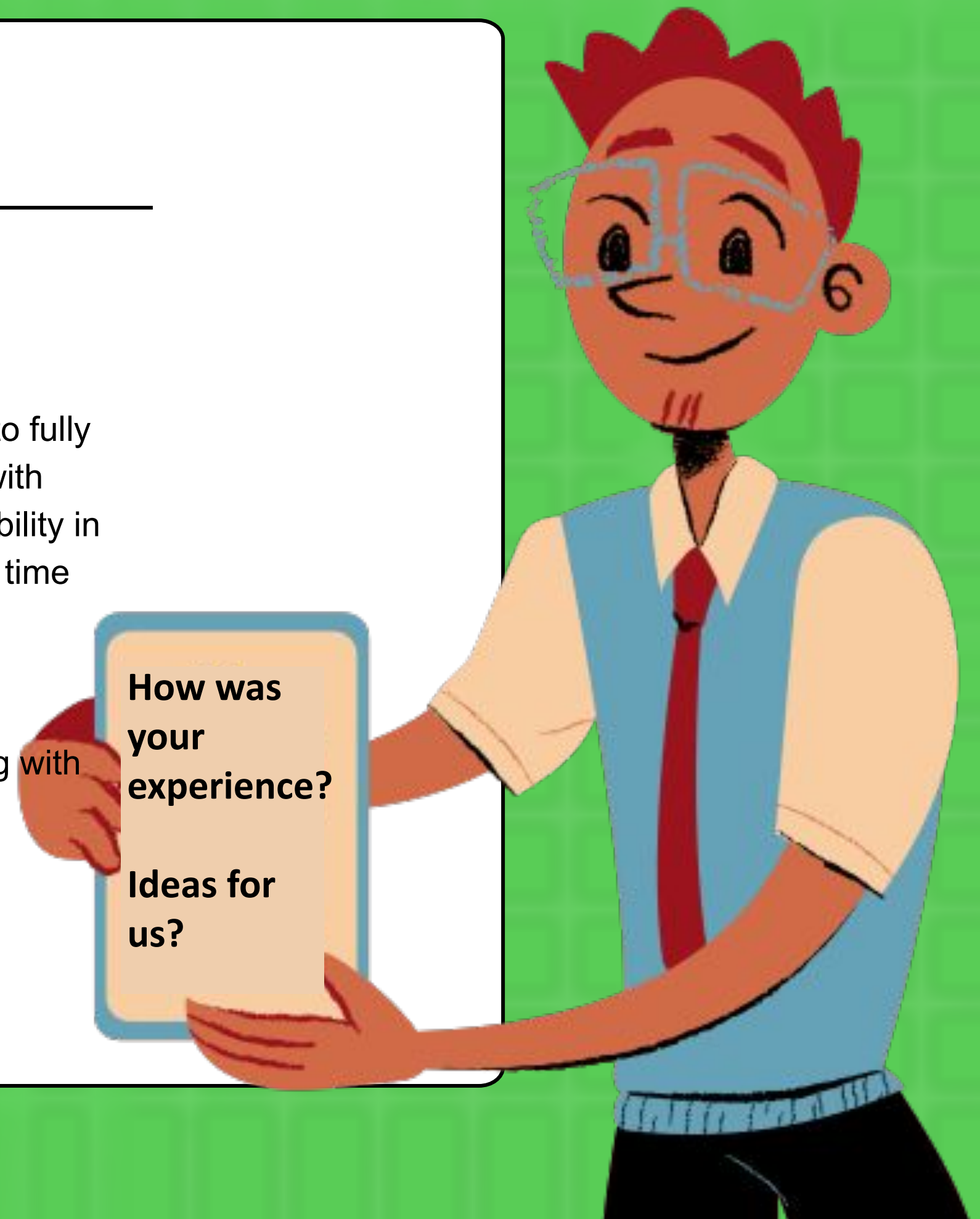
So much detail in the video made me feel like I need to rewatch the video to fully understand the scope and nuance of your course project and experience with students. Also the shared experience of anxiety for learners and your flexibility in learning with them with the end goal of using the game with kids prompted time challenges.

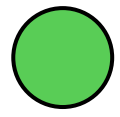
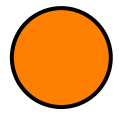
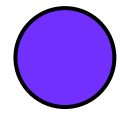
It was meaningful to me because..

- shared experience of anxiety for learners and your flexibility in learning with them

Themes or codes I would call this include...

Feelings in new situations; how to facilitate learning: timing, concepts, vocabulary...

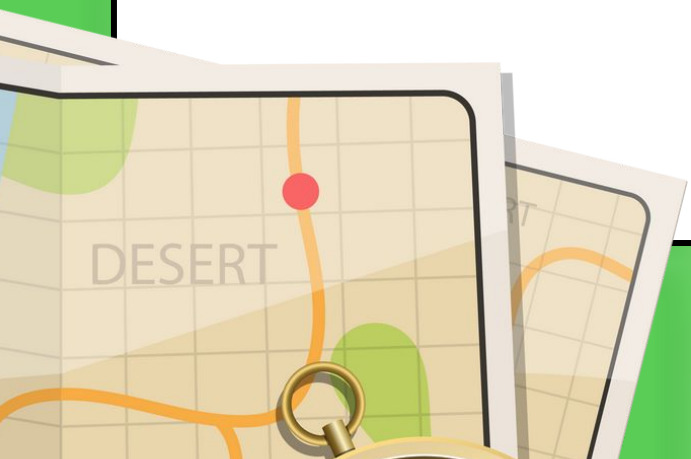




# Share

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Your group names:



# Focus Group Moment Analysis Tools:

Viewing PC

Listening PC

Reading the transcript

Note Catcher (has links to all and makes your own copy)



# CODING METHODS

The screenshot shows a Scratch project page for 'Find the Friend'. The main area features a 10x10 grid with alternating yellow and purple squares. A grey character is at the bottom center, and a blue character is at the top right. A path of colored lines (purple, green, red, orange) starts from the grey character and winds through the grid to reach the blue character. To the right of the grid is an 'Instructions' section with the following text: 'Once you've found the friend - take a screen shot', 'Try to find 3 different ways to the friend - take a screenshot', 'Can you find the friend with only two keys?', 'What is the least amount of steps you can take to find a friend?', and 'What is the most amount of steps you can take to find'. Below the instructions is a 'Notes and Credits' section that says 'Thanks to ungratefulworm and dupethederp for their help with creative problem solving.' At the bottom of the page, there are social media icons (heart, star, share, eye) with counts (0, 0, 0, 112), a date 'Aug 07, 2023', and buttons for 'Add to Studio' and 'Copy Link'.



Question: For “zoom coding”: When or how does the video or audio matter?





Please share in the chat:



In your opinion, what should be included in teacher preparation as essential CTDL (Computational Thinking/Digital Literacy) content?

# Task

1. Experience multimodal coding
2. Share if you have had a similar wonderings to us about when and how to do it later on slides 12–15