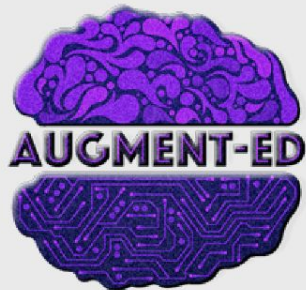


CaPS!

*A Human + AI Approach to Scalable,
High-Impact Presentation Skill Development*

May 29, 2025
Learning Ideas Conference



Augmenting Human Intellect in Education



NYU | STEINHARDT



Maaïke Bouwmeester, PhD

ECT Clinical Asst Professor
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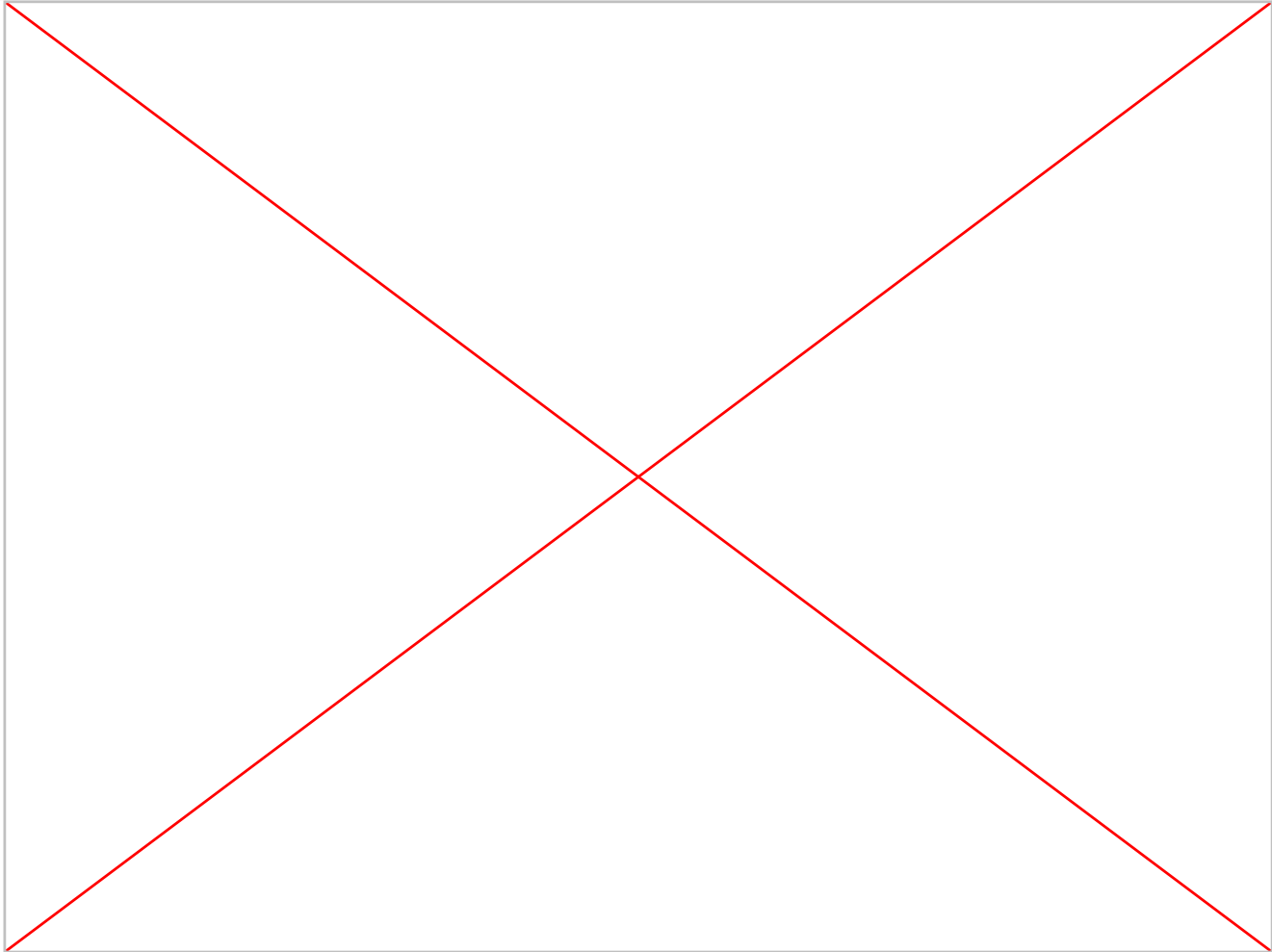
Learning Technology &
Experience Design



NYU | STEINHARDT



Intro to CaPS



Overview

1

Why CaPS?

2

How It Works

3

Research

Why CaPS?

*“Critical Thinking, Communication, Collaboration, and Creativity are **FOUNDATIONAL** for students to thrive in increasingly complex life and work environments.”*

– P21 Framework for 21st Century Learning, 2019

**World Economic
Forum (2023):**

*Top future skills:
communication, critical
thinking, creativity*

**OECD Education
2030:**

*Communication as a
**transformative
competency** for global
collaboration*

NACE Job Outlook:

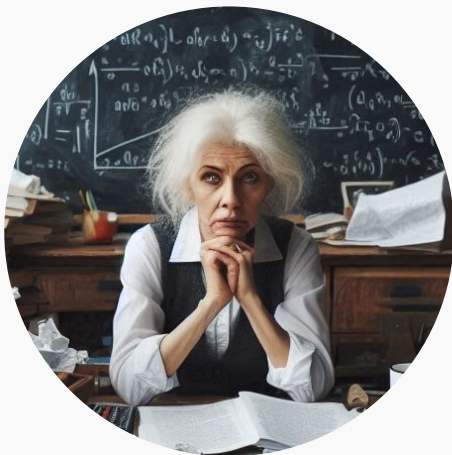
*Communication &
teamwork **rank above
GPA***

McKinsey (2021):

*Soft skills like
communication are
**least likely to be
automated***

The Challenge:

Faculty



Lack expertise and time to do communications coaching and training

How might we support students' presentation skill development?

Existing Tools: Focus on communication but rarely integrated into classrooms

Students



Underestimate the training and practice behind strong presentations

How CaPS Works

Key Features & Activities

Deliberate Practice of
Subskills

Personalization

Short Videos- Comm.
Strategies

Analyze Examples

Self-Practice

In Person Group
Learning

Weekly Meetings

Integrated Presentation
Practice

How it Works



Delivery



Vocal Delivery



Body Language

Structure and Content



Intros & Conclusion



Body Content

Slide Design



Message Design

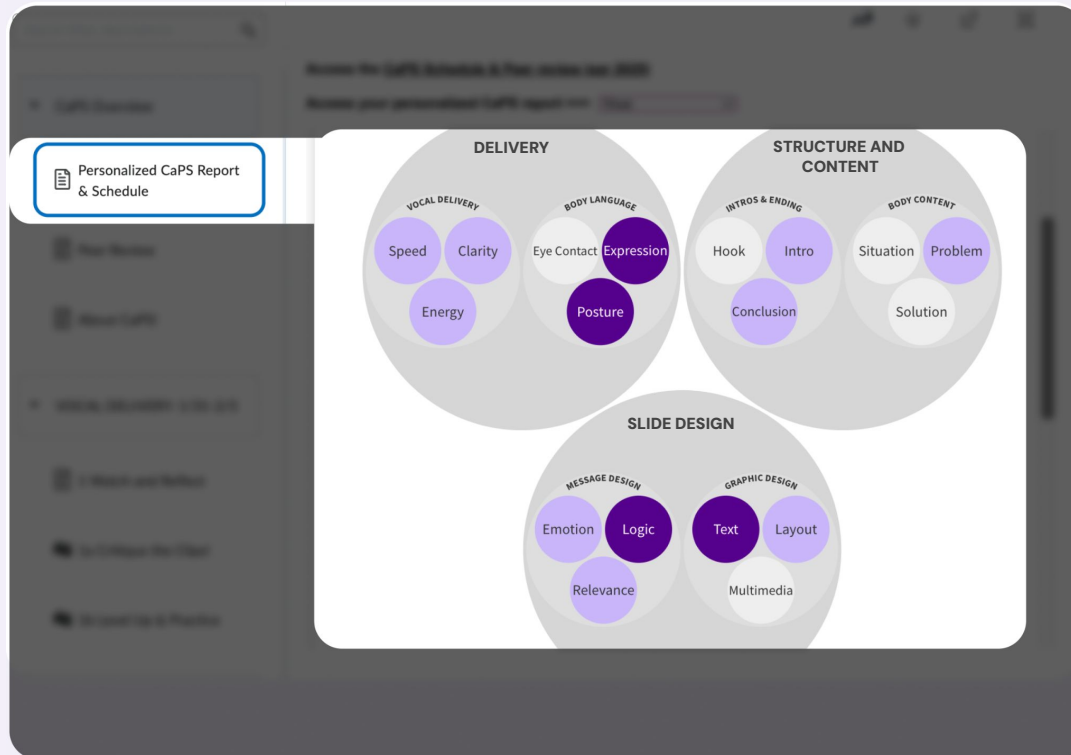


Graphic Design

6 Learning Modules

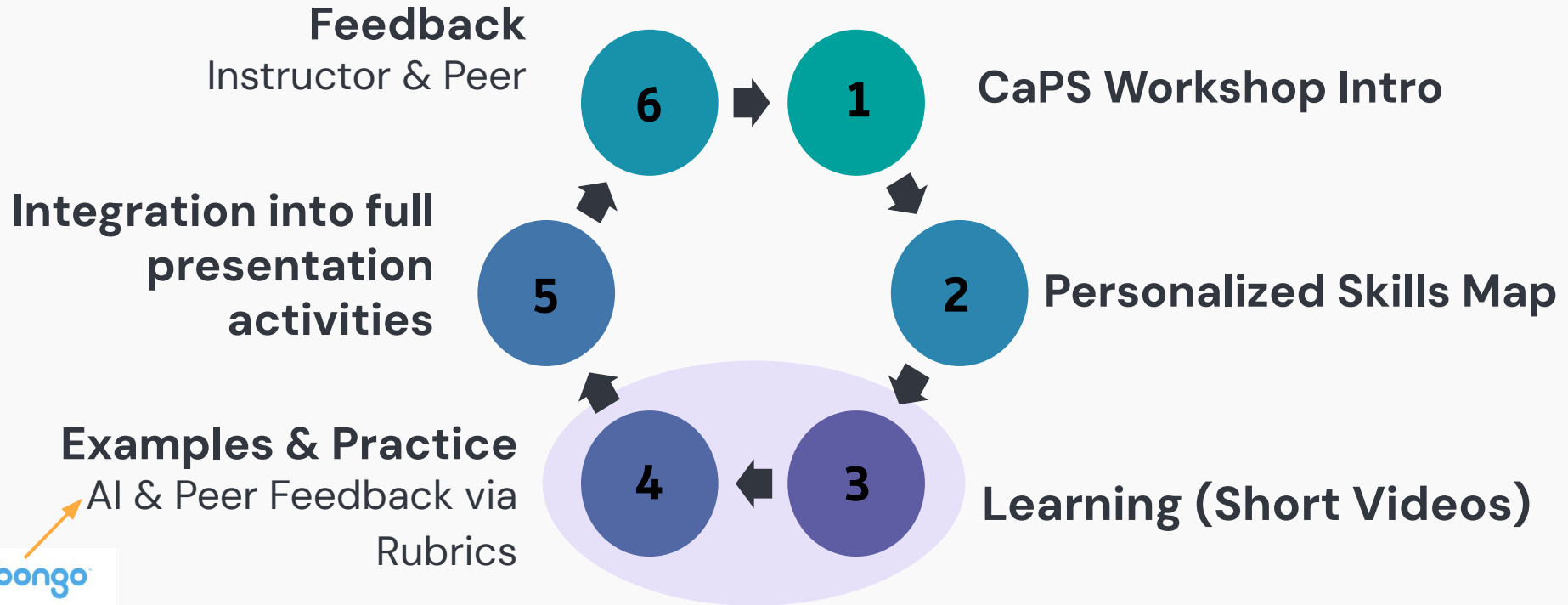
LEGEND / PROFICIENCY LEVEL

- Advanced
- Developing
- Emerging



Personalized Skills Map

How it Works



Guiding *Theories*

- Deliberate Practice (Ericsson, 2007)
- Self-regulation theory (Zimmerman, 2000)
- Self-determination theory (Ryan & Deci, 2008)

Research

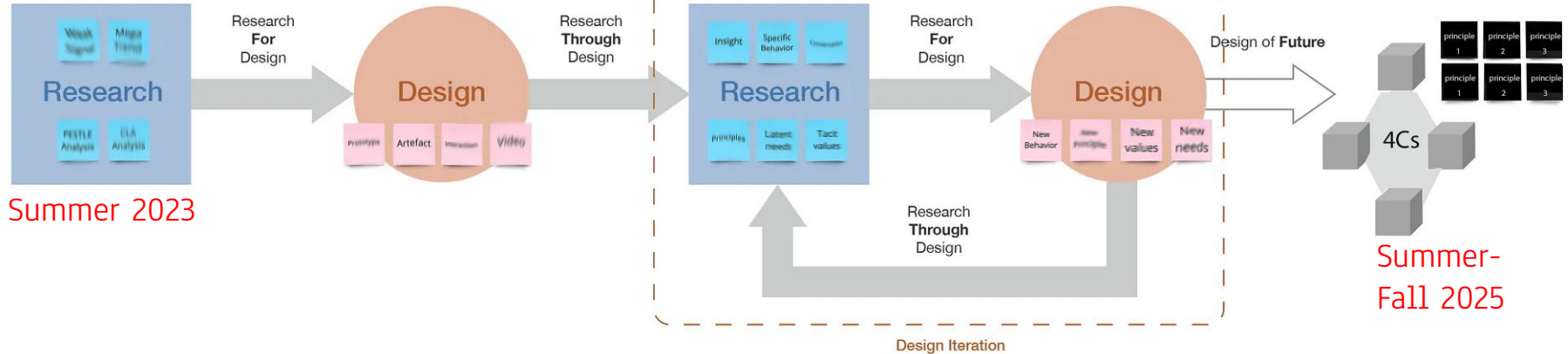
...and emerging design principles
for 4C skill development

Research for *and* through Design

(a DBR approach)

V1 CaPS
(Spring 2024)

V2 CaPS
(Spring 2025)



V2 Research Overview



Participants

- **7 Masters students** / Educational Technology programs
- **Range of presentation skill levels**, self-efficacy and confidence
- Optional participation



Context

- Students attended a **7 week CaPS workshop**, part of their thesis class
- **Not graded**, received a **Certificate of Completion**
- Facilitated by CaPS team



Research Methods (Case Study Approach)

- Surveys (pre/post)
- Interview (2 rounds)
- Document/artifact analysis (Bongo)
- Log file analysis (Brightspace LMS)
- Thesis presentations (end of S1 and S2)

Research Questions

1. What were students' experiences with the CaPS program?
2. In what ways did CaPS support the intended outcomes outlined in the theory of change?
3. What design principles emerge from this research?

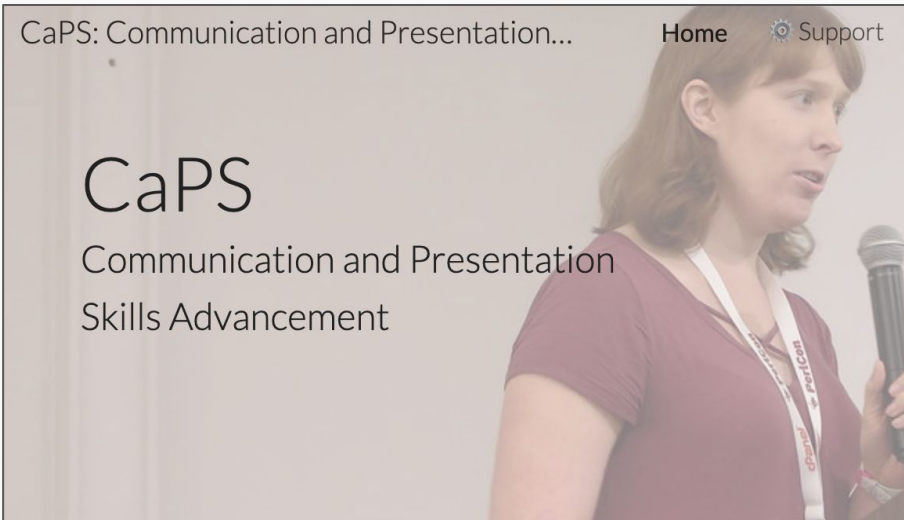
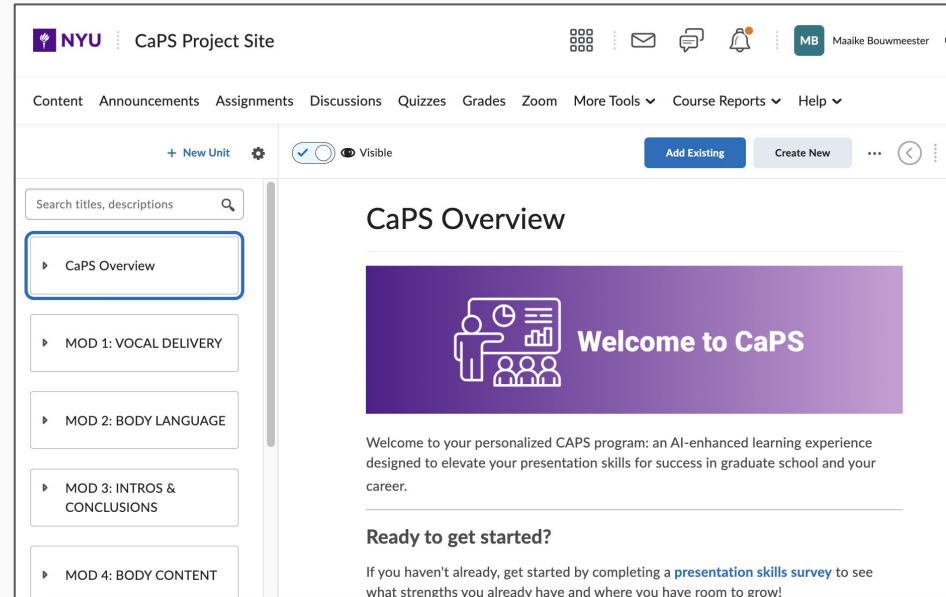
Key Takeaways

1. **What were students' experiences with the CaPS program?**
2. In what ways did CaPS support the intended outcomes (per theory of change)?
3. What design principles and recommendations for improvement emerge from this research?

UX and Integrated design are key to engagement!

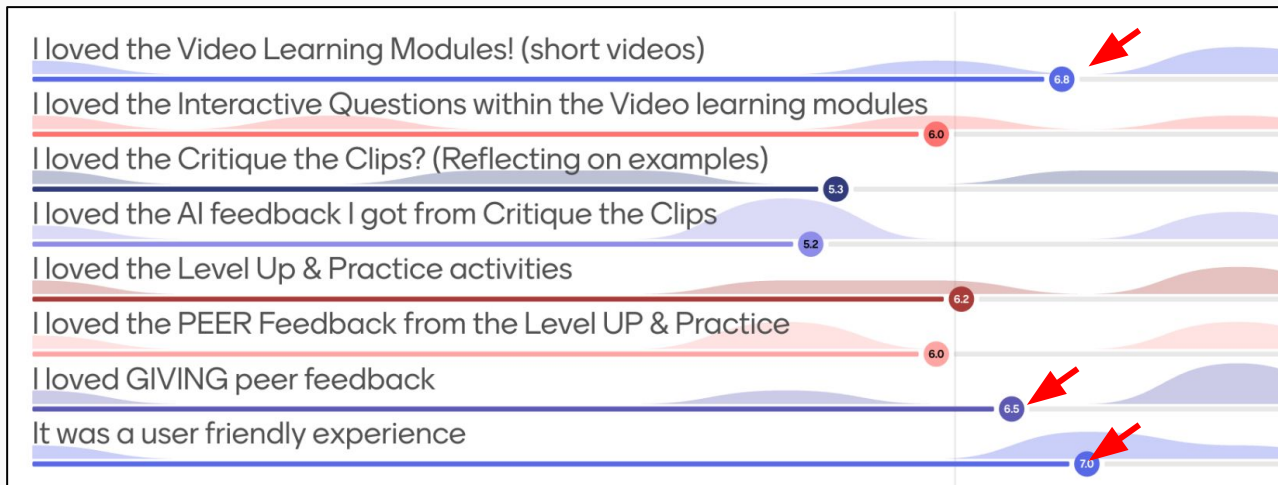
V2 CaPS
(Spring 2025)

V1 CaPS
(Spring 2024)



Students enjoyed Workshop & Peer Interaction

Ratings of CaPS activities



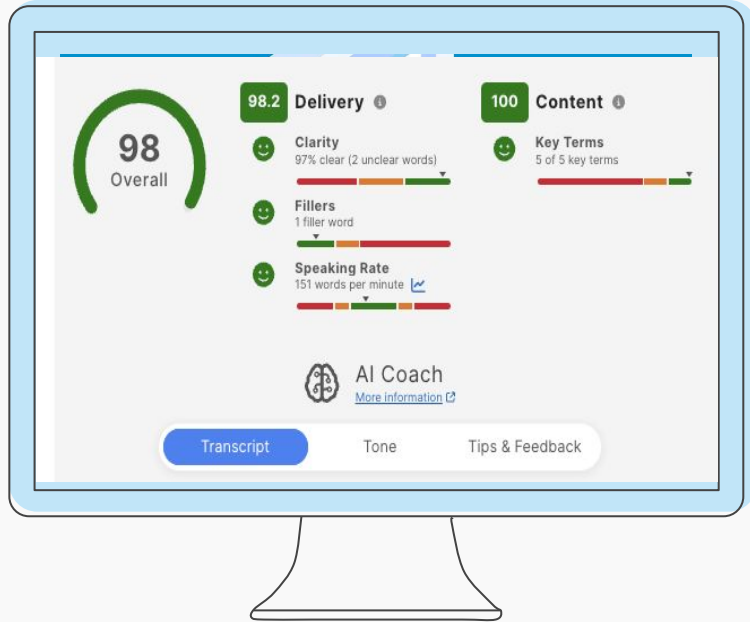
Based on 10 pt scale, rating for CaPS activities and features,
7 participants, May 2025

- Workshop **guest speakers** high point
- Peer Review rated highly, including **giving feedback**.

Takeaways:

- **Integrating AI and human elements** are important for engagement.

AI feedback rated lower than peer feedback



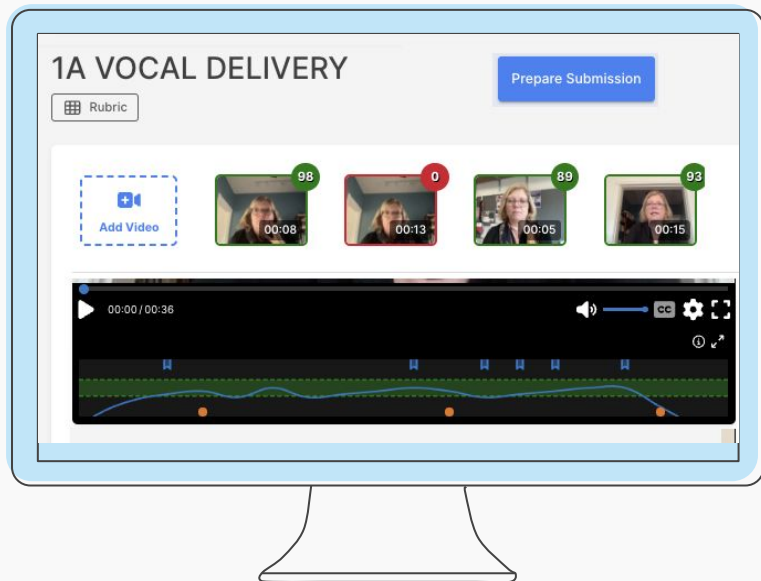
Example of Bongo AI feedback

- Format and discoverability of AI feedback
- AI feedback felt less personal, actionable

Takeaway:

- **AI feedback must be actionable, relevant and easy to find**

Finding time to practice was challenging



Bongo recording attempts for Vocal Delivery

- Valuable but time intensive
- Competed with other priorities, harder to complete regularly

Takeaway:

- CaPS may be better suited for **low-pressure times** or when paired with **extrinsic motivators**.

Findings

1. What were students' experiences with the CaPS program?
- 2. In what ways did CaPS support the intended outcomes?**
3. What design principles and recommendations for improvement emerge from this research?

CaPS! *Theory of Change*

Activities: How It Works



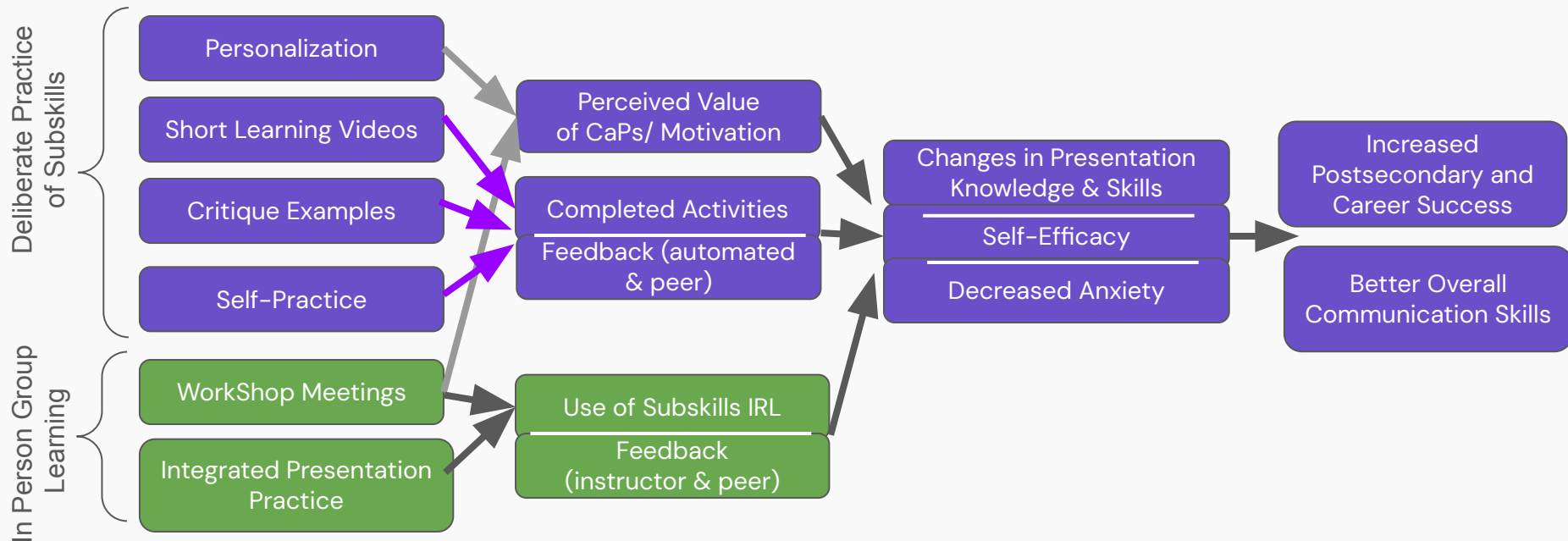
Outputs: Results of Activities



Outcomes: The Difference it Makes



Impact: The Change We Want



CaPS! *Theory of Change*

Activities: How It Works



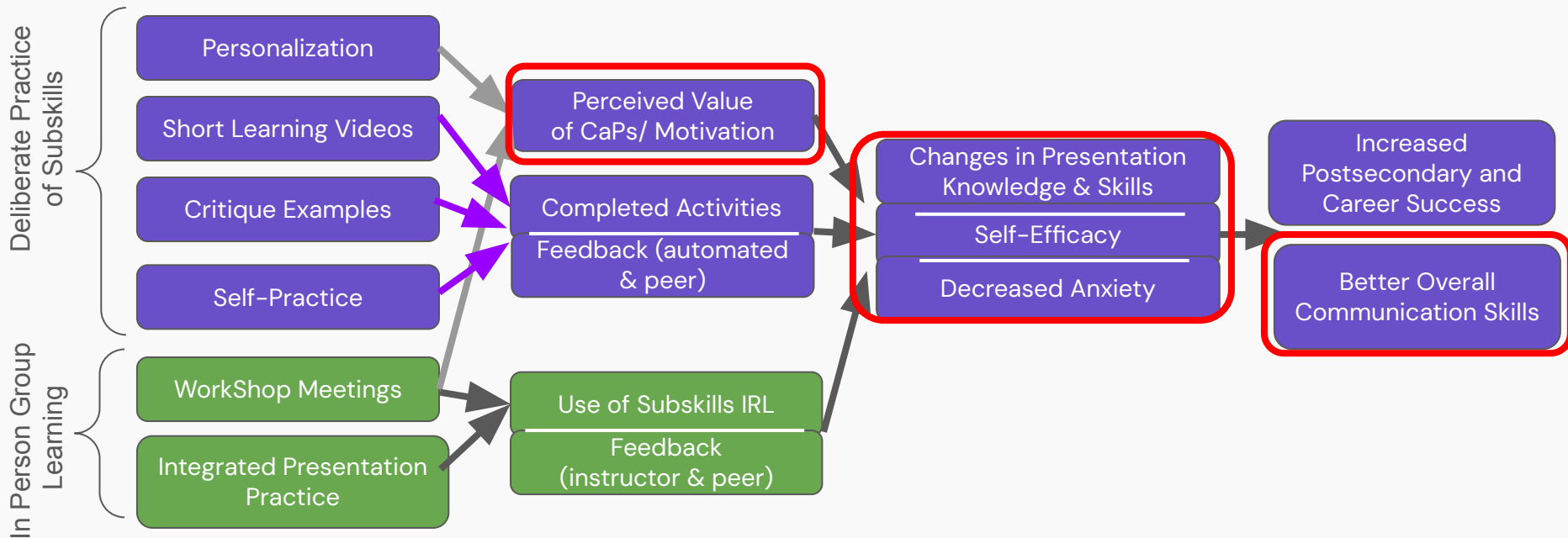
Outputs: Results of Activities



Outcomes: The Difference it Makes



Impact: The Change We Want



Perceived Value/ Motivation

“

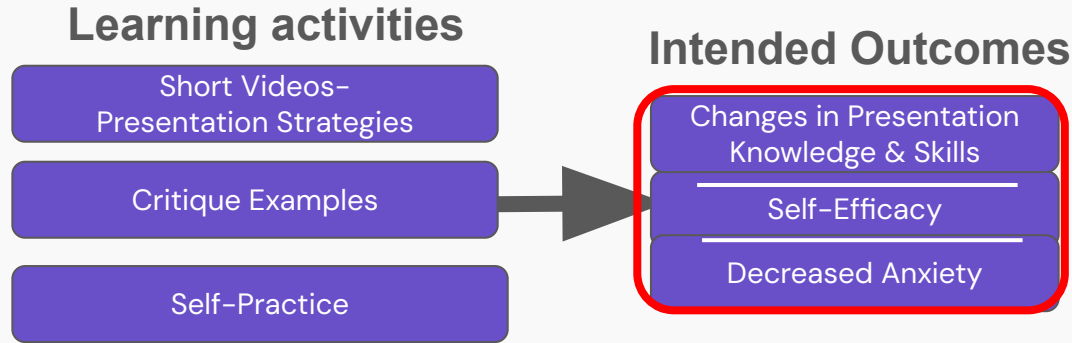
“I like the **personalized report**, especially that it shows my areas of strength and growth.”

“**Seeing the skills in action** helped me implement them into my presentation.”

“It was nice to hear **[guest speaker]** say that she fakes it and sometimes gets super sweaty. Very relatable!”

Takeaway: **Personalization** and **social belonging** increased perceived value and persistence.

Presentation knowledge and skill development



- Based on analysis, CaPS presentation strategies were integrated into final Thesis presentations
- Students reported feeling more confident and less anxious about presenting
- Second round interviews in progress

Example rubric (CaPS Module 3: Intros and Conclusions)

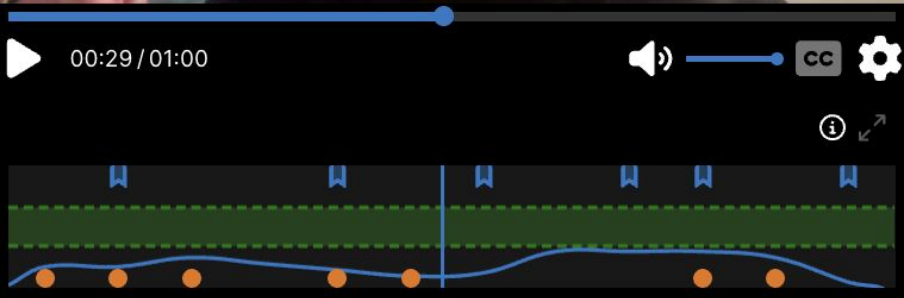
Rubric Score: 9/9

	Emerging	Developing	Advanced
Hook (Attention Grabber)	- Lacks a clear hook or starts with a generic statement that fails to grab attention. - No attempt to engage curiosity or emotion.	- Includes a basic hook, such as a rhetorical question or fact, but it may lack impact or relevance to the topic. - Attempts emotional or intellectual engagement but may feel forced or underdeveloped.	- Effectively grabs attention with a compelling hook, such as a story, startling fact, quotation, or visual aid. - Hook is relevant, memorable, and sets the tone for the presentation.
Intro (Overall)	- Fails to establish relevance to the audience. - Does not clearly explain relevance or establish speaker's connection or credibility. - Project summary is unclear or missing. - Lacks a preview of presentation.	- Partially establishes relevance and speakers personal connection or credibility with topic - Includes a project summary and preview of presentation, but they may lack clarity or impact.	- Clearly establishes relevance and personal connection to the topic. - Builds strong connection or credibility with topic - Project summary is concise and memorable, and the preview sets clear expectations for what's next.
Conclusion	- Fails to signal the end - Does not summarize main points or restate project or main thesis effectively. - Call to action is vague or missing. - Lacks a strong closing to tie the presentation together.	- Signals the end but may lack polish or clarity. - Provides a basic summary of main points but may feel disconnected. - Includes a call to action but is mumbled or without geniality. - Attempts a closing but may not be effective.	- Clearly signals the end with confidence. - Reinforces key points and restates project or thesis effectively. -Provides a specific, actionable call to action that motivates the audience. - Ends with a closing that that leaves a lasting

“Critique the Clips” with AI feedback (Example)

Response #2

Show Question



AI Coach

[More information](#)

Overview

Tone

Tips & Feedback

The speaker identified some key elements of the presentation, such as relevance and credibility, but did not fully address the evaluation criteria or provide detailed analysis. More focus on the effectiveness of the hook and conclusion would enhance their reflection.



66.3

Delivery ⓘ



100

Content ⓘ

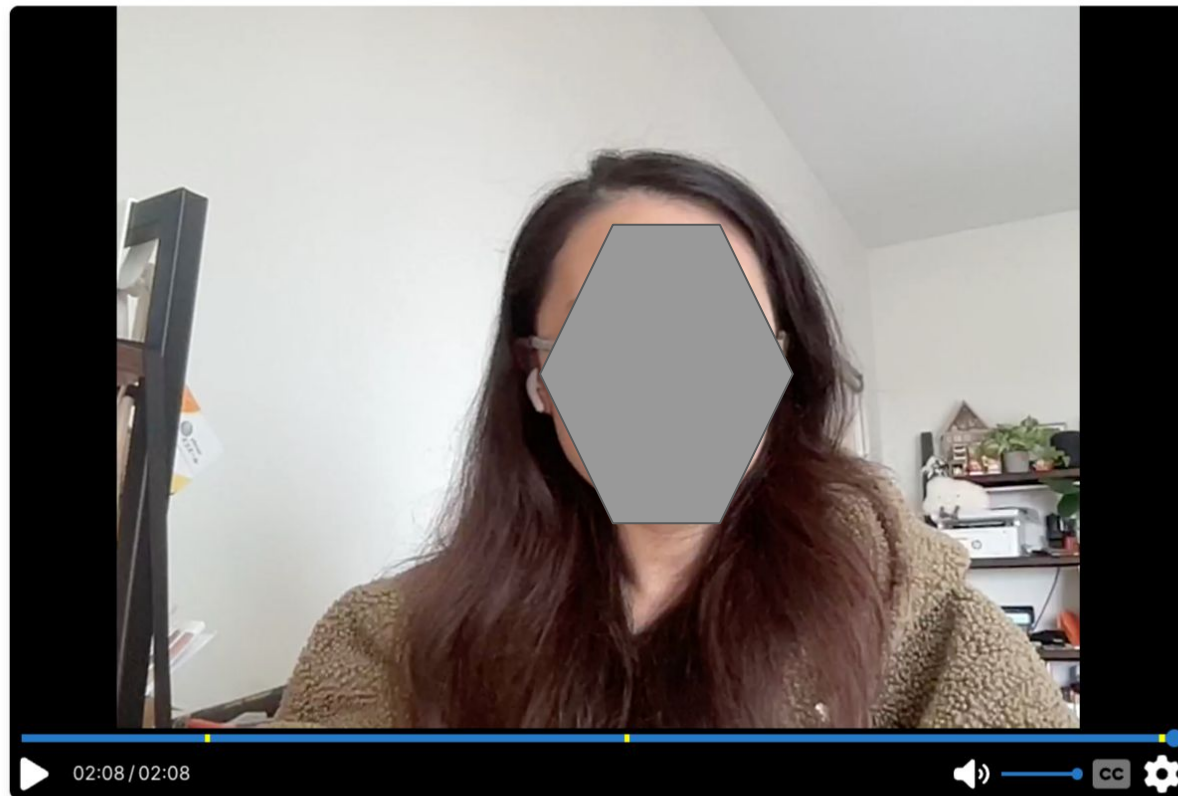


 Detailed Analysis

“Level Up and Practice” with Peer Feedback (Example)

Recorded 03 Apr 2:21 pm
Apr 3, 2025, 4:21 PM

Peer Review 9 / 9



00:20 [REDACTED]

[REDACTED] has applied quotes and data hooks in the intro. It is good!

4/8/2025, 4:18 PM

01:07 [REDACTED]

[REDACTED] has introduced herself and what she did in her research to show the credibility of her solution.

4/8/2025, 4:21 PM

02:06 [REDACTED]

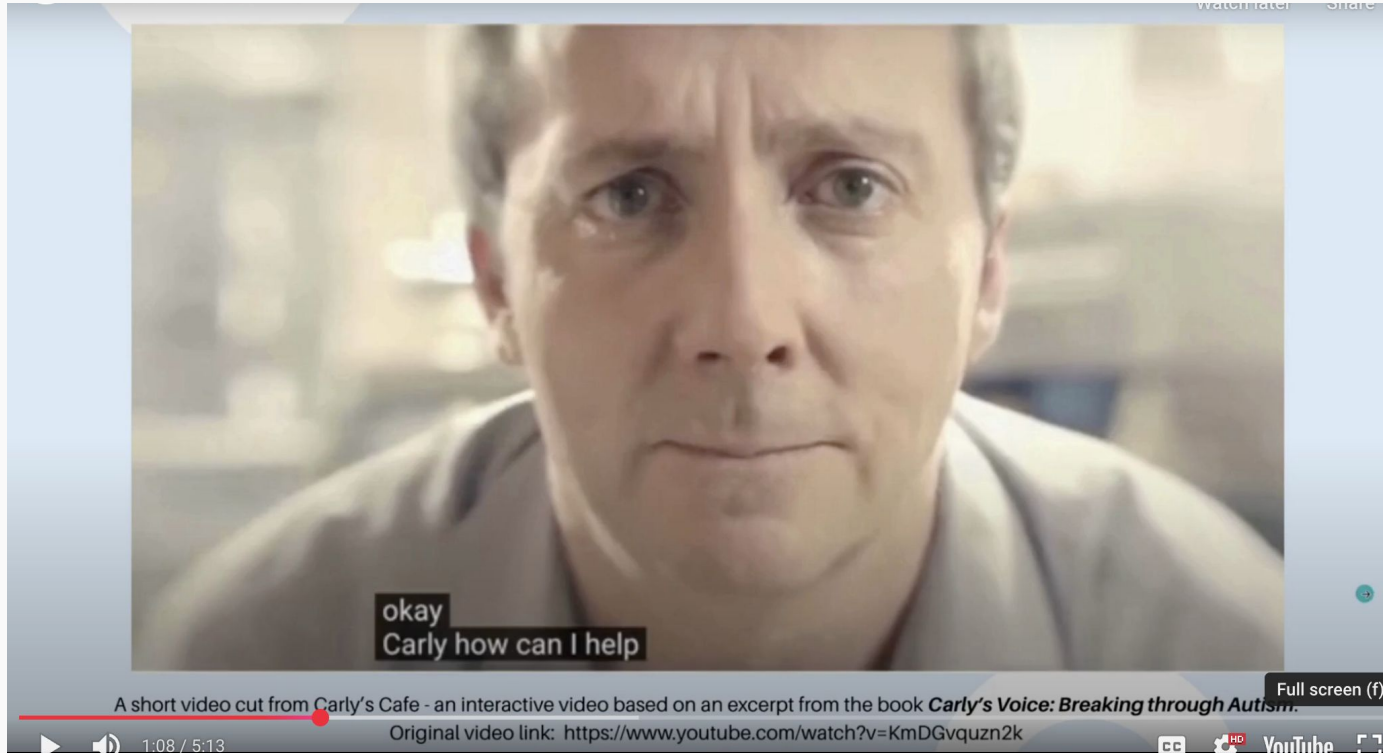
Hi [REDACTED] You've made a solid start using a strong testimonial, and I can see the direction you're heading in! Your hook gave a basic entry into the topic, though it could be strengthened to be more emotionally or intellectually engaging.

Your introduction includes a summary and relevance, but it might benefit from clearer structure or more personal connection. The conclusion could also use a stronger summary of key points or a clearer call to action. Keep going—you're definitely on the right track!

4/7/2025, 1:34 PM

Final Thesis Presentations (Example)

Example of an opening “hook”



Example of strong conclusion

CONCLUSION

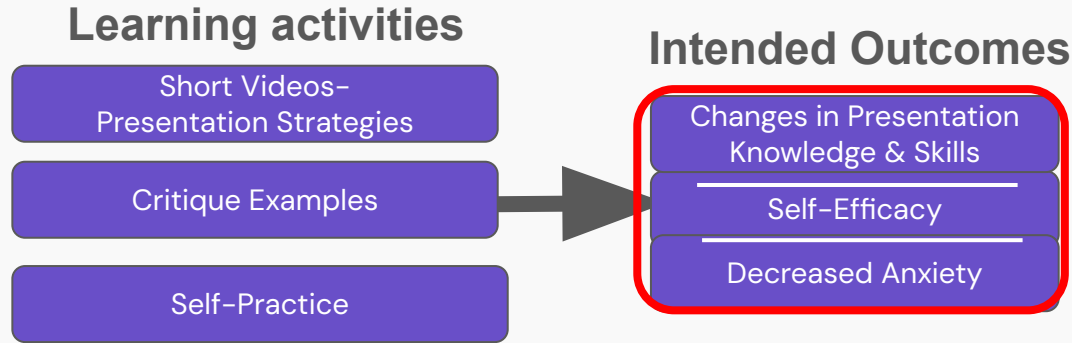


Research-Backed

Personalized

Designed for the real challenges
caregivers, like Arthur, face.

Presentation knowledge and skill development

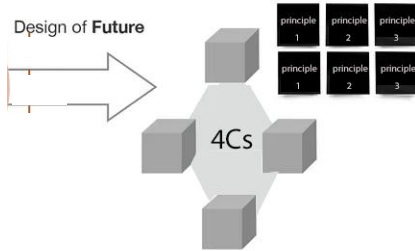


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Findings

1. What were students' experiences with the CaPS program?
2. In what ways did CaPS support the intended outcomes outlined in the theory of change?
3. **What design principles and recommendations for improvement emerge from this research?**

Emerging Design Principles



1. **Low stakes practice** on **subskills** (with immediate feedback) supports SRL and skill development
2. **Motivational design** (e.g. SDT) and **curriculum integration** are critical for persistence and volition
3. **Scaffolded peer review** + AI feedback is powerful combo

Thank you!

Questions? Please contact:

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Yinuo Ma (ym3126@nyu.edu)



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