



# LOST & FOUND: NAVIGATING THE MAZE OF INSTRUCTIONAL FEEDBACK

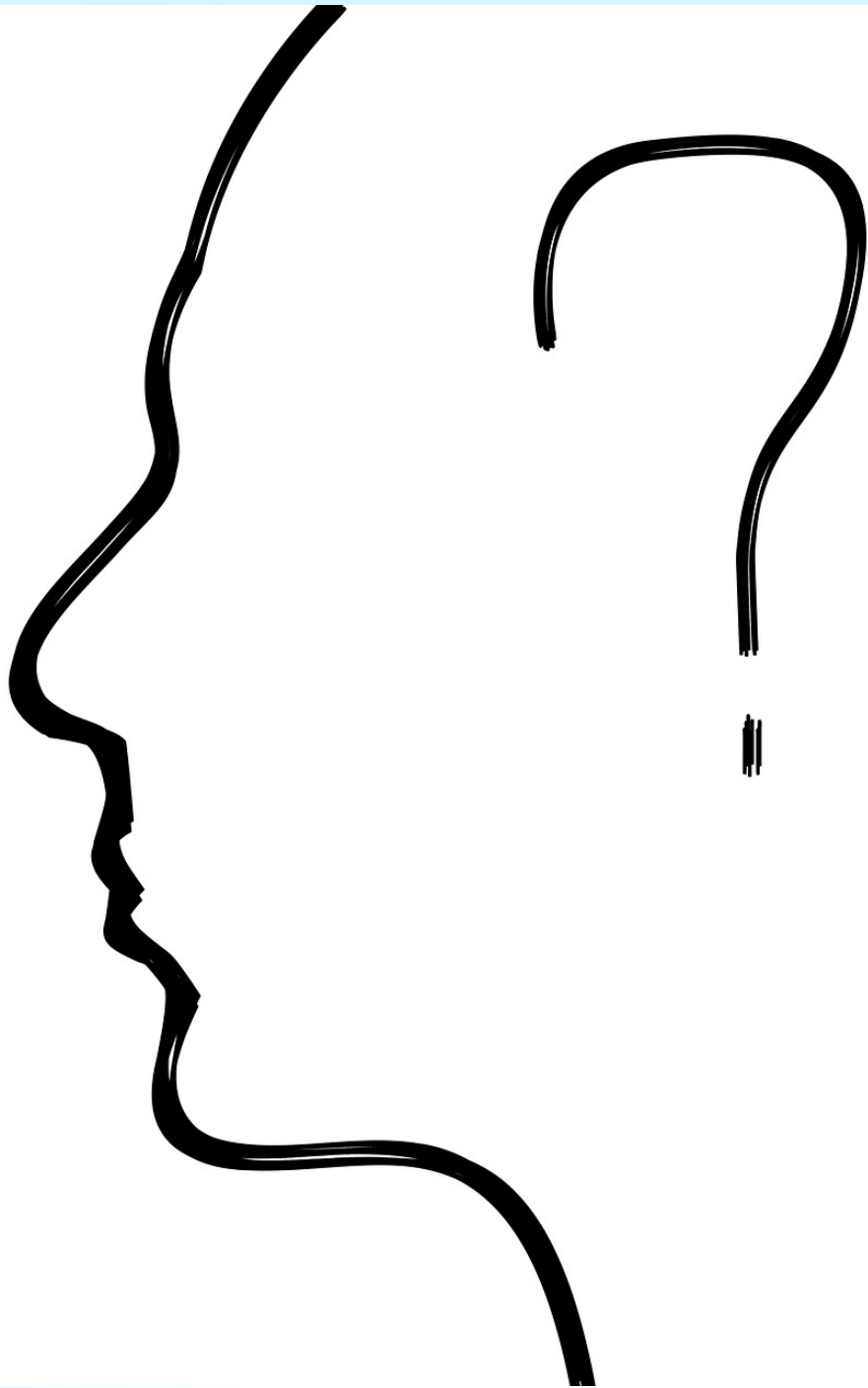
**PROF. DR. ANASTASIYA LIPNEVICH**

Queens College & The Graduate Center,  
City University of New York, USA





**WHY DIDN'T  
YOU TELL ME?**



**WHEN  
DID I ASK?**



# STUDENT- FEEDBACK INTERACTION

Lipnevich & Smith  
(2022). Student-Feedback  
Interaction Model: Revised

...and AFTER

## CURRENT PERFORMANCE

### Feedback message

Timeliness  
Level of Detail  
Comprehensibility  
Accuracy  
Tone  
Focus  
Function



## LEARNER

### Individual Characteristics

Ability  
Receptivity  
Expectations  
Self-efficacy  
Motivation  
Personality

### Cognitive Processing

Do I understand the  
feedback?

### SELF-FEEDBACK

### Affective Processing

How do I feel about  
the feedback?

### Behavioural Processing

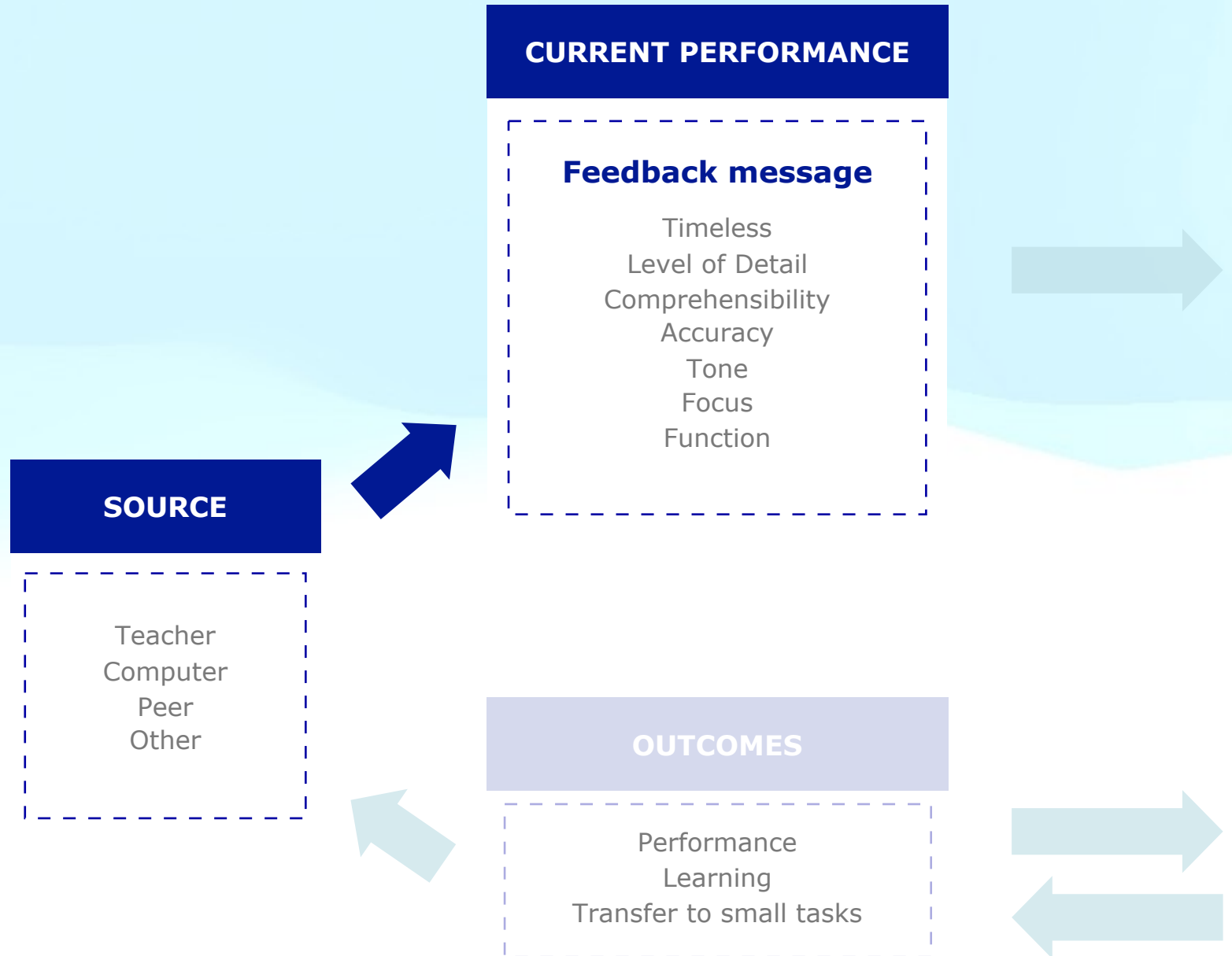
What am I doing  
with the feedback?

## OUTCOMES

Performance  
Learning  
Transfer to similar tasks



# SOURCE AND MESSAGE





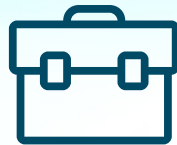
# TEACHER GRADING AND FEEDBACK: EXPLORING BIASES

- ▶ Do teachers differentially grade male and female students' essays?
- ▶ Do these potential differences persist when they employ a different grading method (holistic vs. analytic)?
- ▶ Do students' and teachers' gender predict the quality of feedback comments?

# TEACHER FEEDBACK: CHECKING FOR BIASES?



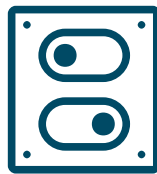
174 teachers



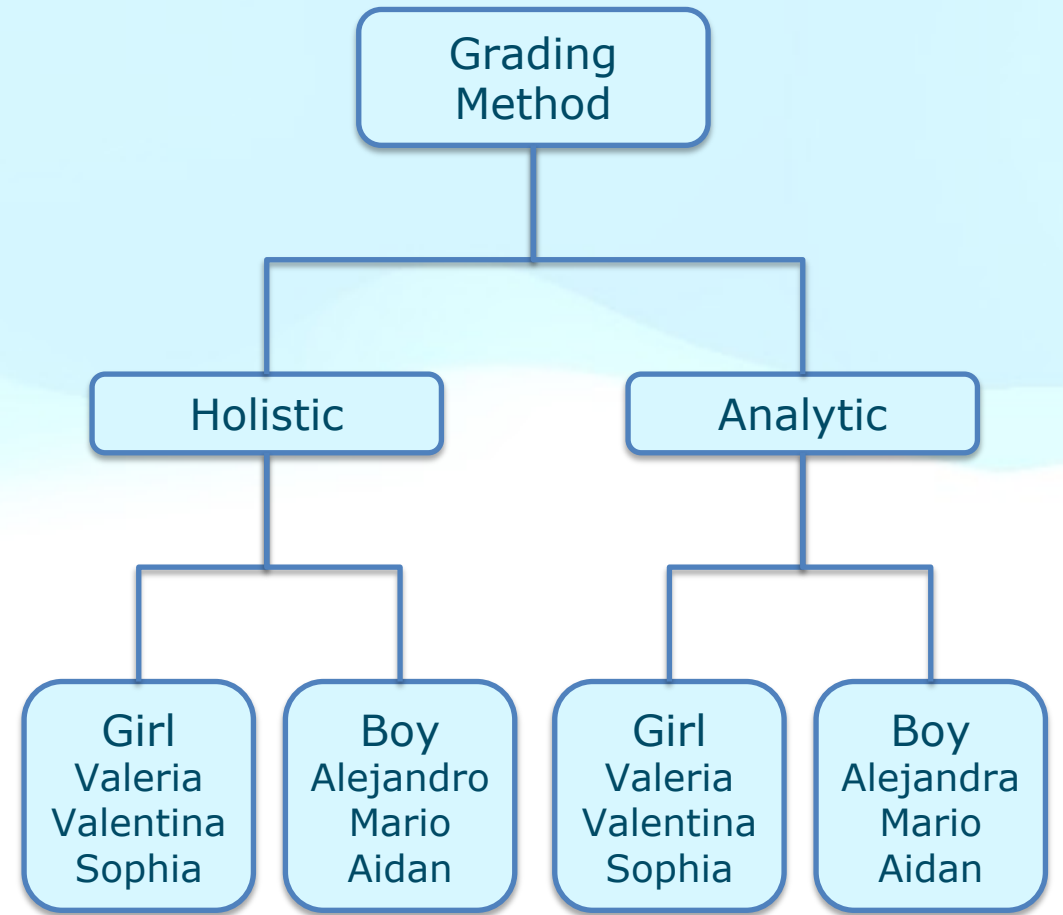
1 teacher  
education  
program



56%  
female

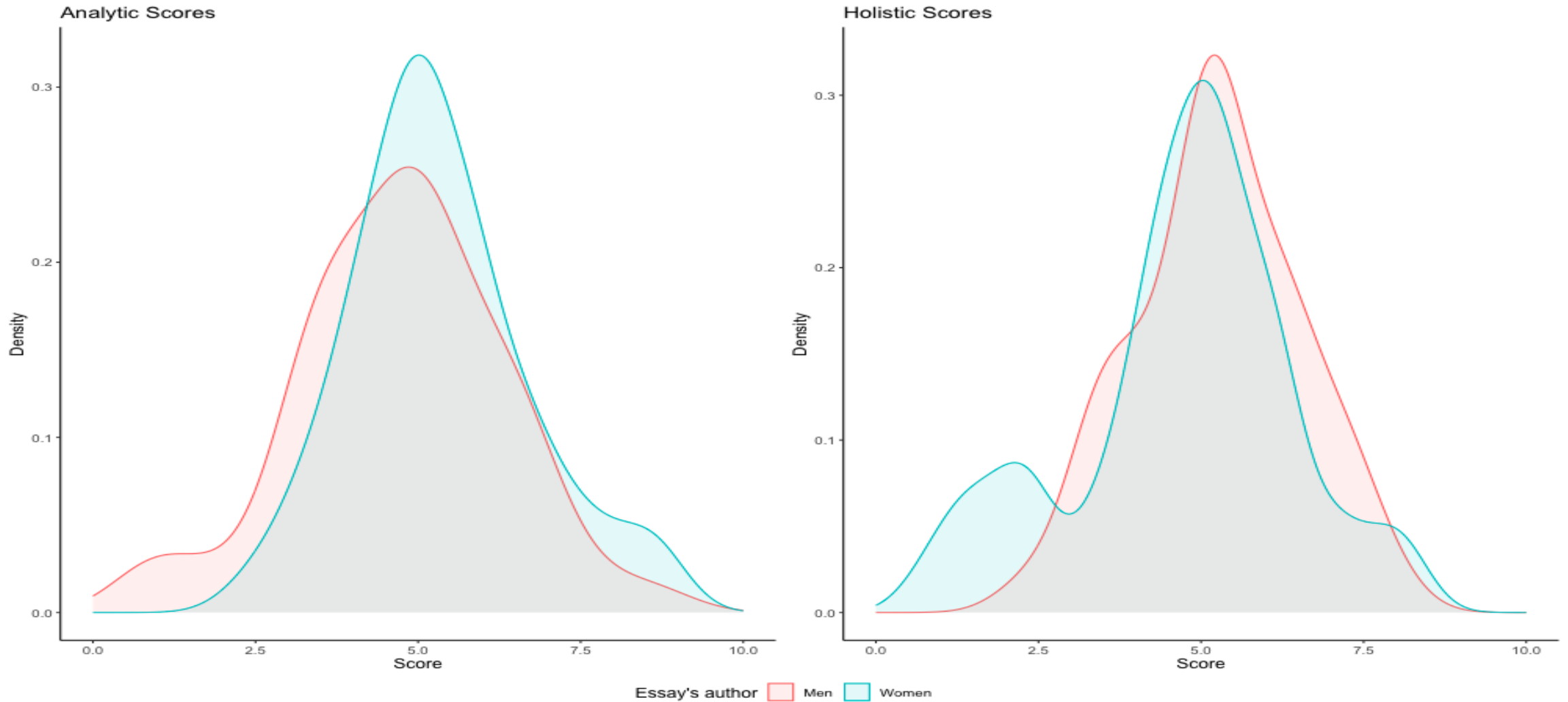


Same essay  
signed with  
2 genders

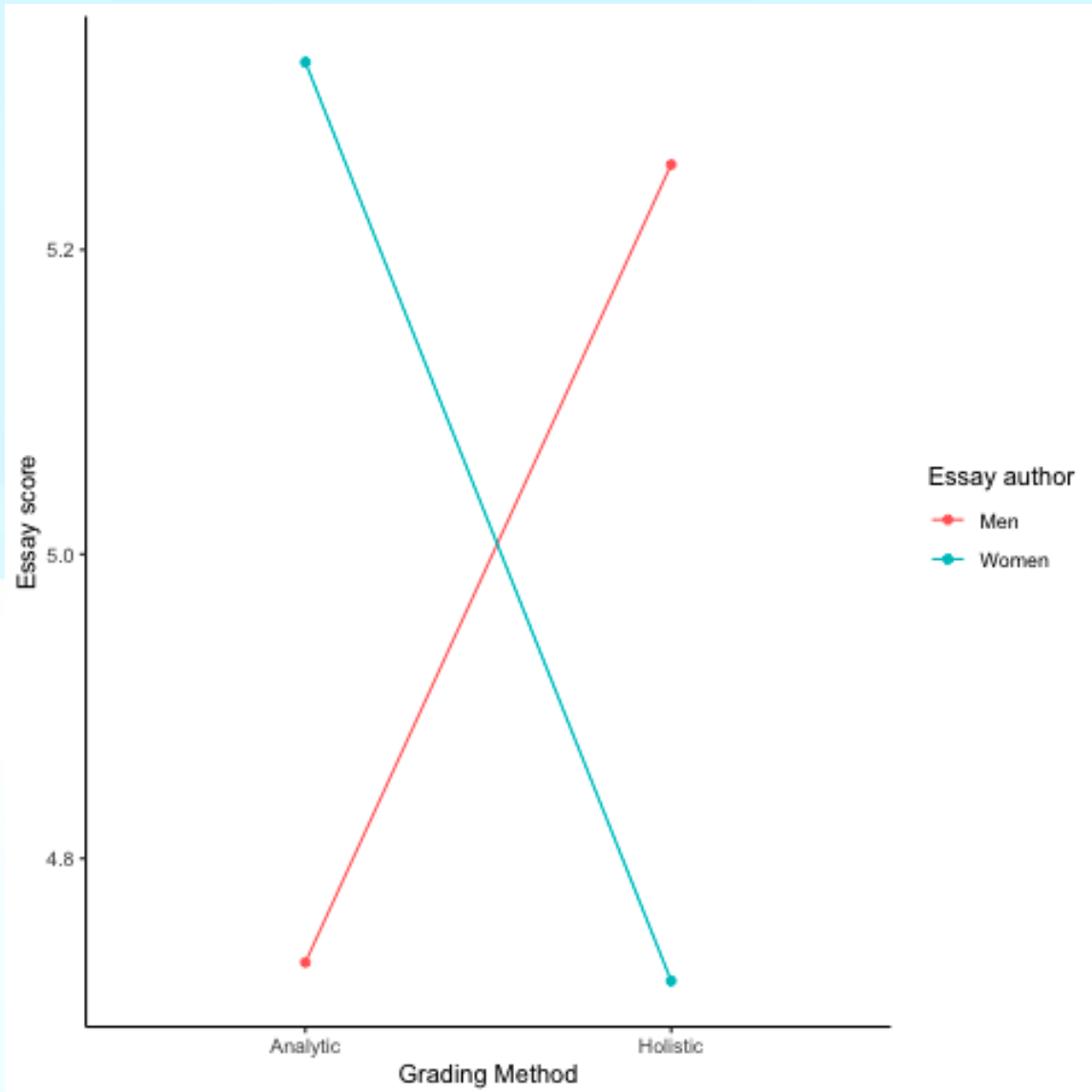




# DISTRIBUTION OF GRADES



# FINDINGS



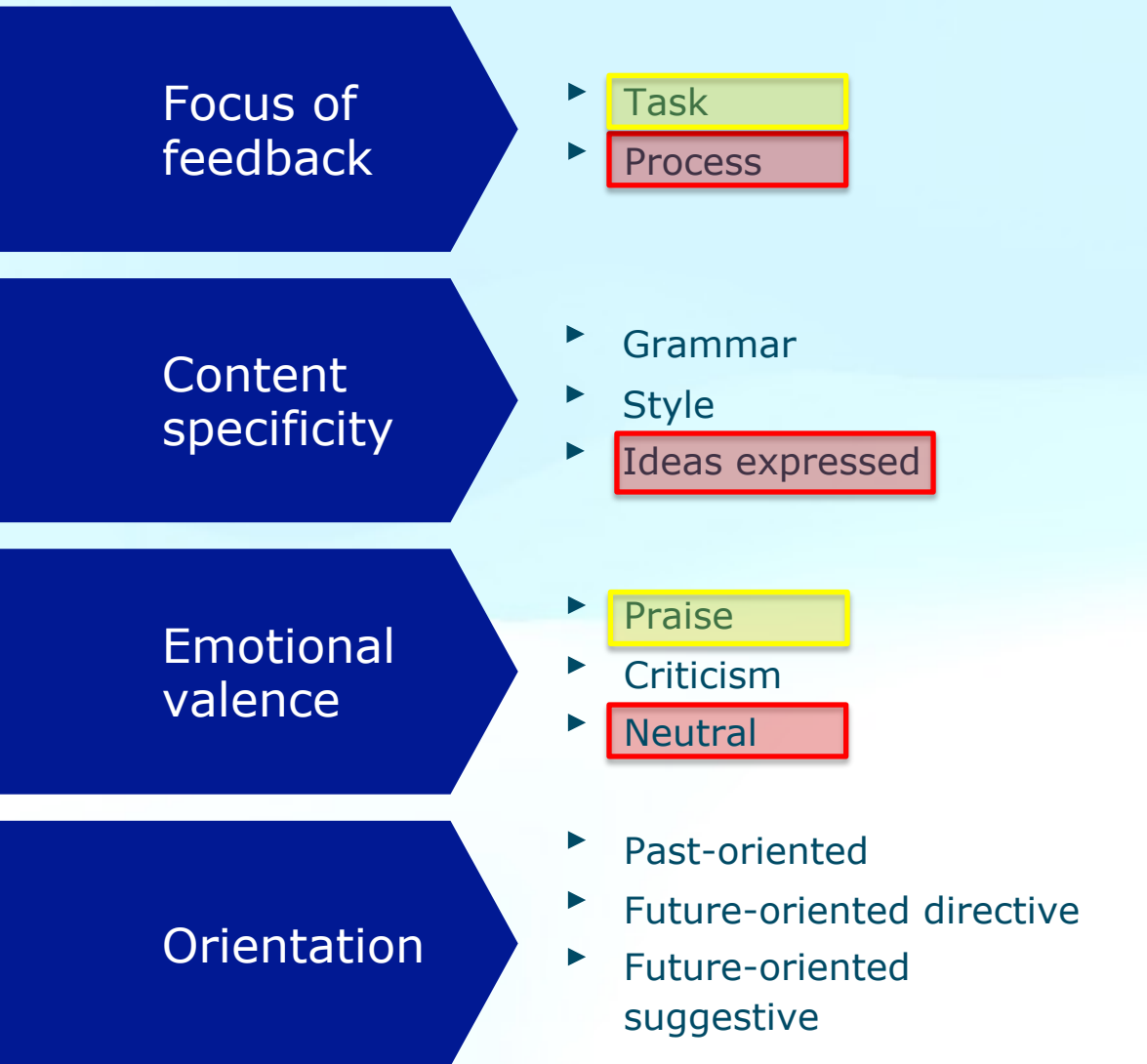
- ▶ When using an **analytic approach**, **female** teachers rated *the girl's essay higher* than the boy's:

Girls: Mean = 5.42, S.D= 1.22  
Boys: Mean= 4.43, S.D = 1.29

- ▶ In contrast, under **the holistic method**, **female** participants rated *the boy's essay higher* than the girl's:

Girls: Mean = 5.12, S.D= 1.25  
Boys: Mean= 4.28, S.D = 1.35

- ▶ We found no significant statistical differences between conditions for male teachers.



897 comments coded by two researchers into 12 categories



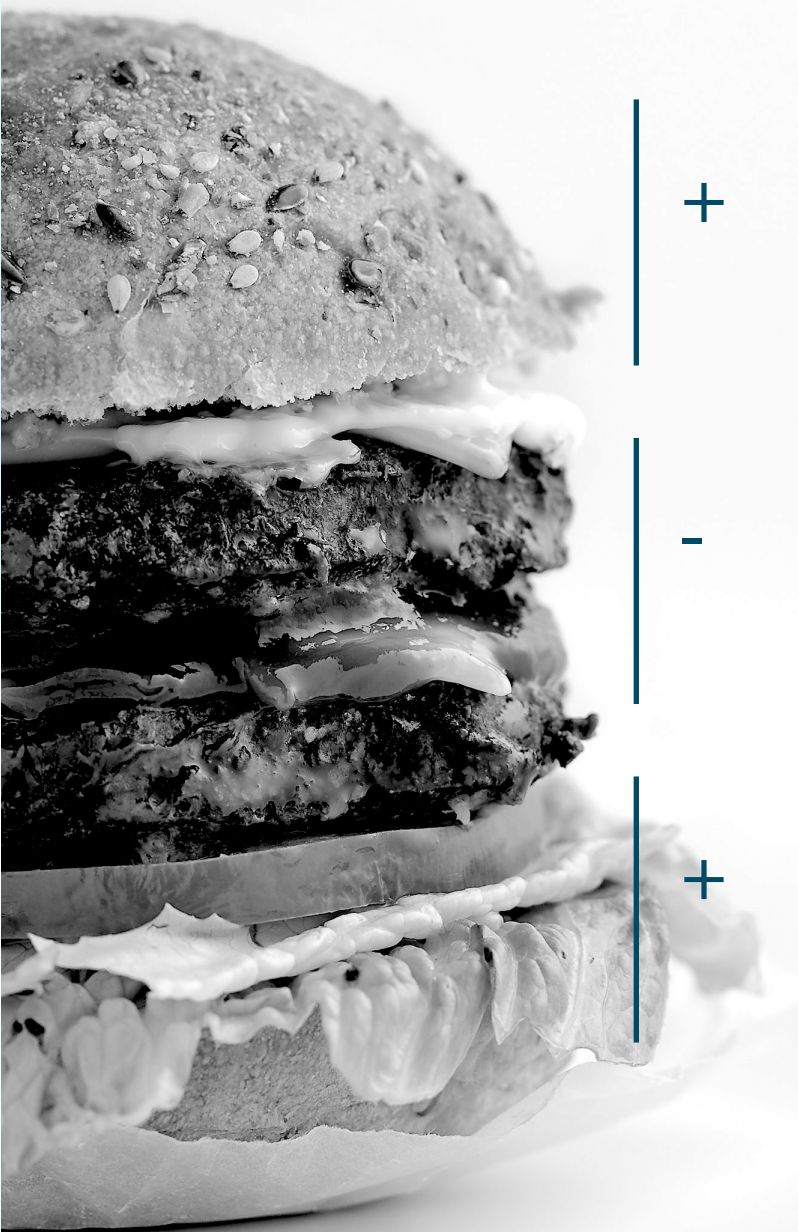
When it comes to comments, there were many interesting patterns



Women provided significantly more praise to boys than to girls and more neutral comments to girls ;



Men provided more comments on ideas and writing process to girls and more very specific task-level comments to boys



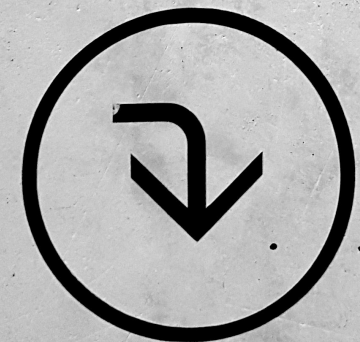
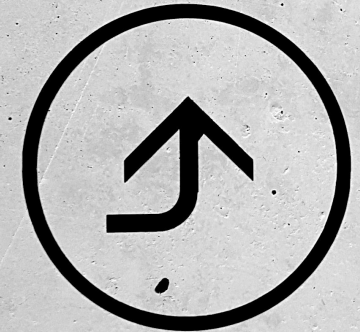
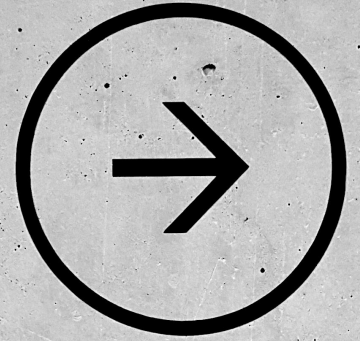
# PRAISE BE? OR NOT.

- ▶ **Tread with caution** as we offer praise to students
- ▶ **Reconsider** the feedback sandwich
- ▶ Praise elicits **anchoring bias**
- ▶ Students' **motivation** and **quality of revisions** decreased following praise

# WHAT DO WE DO?

- ▶ **SERIOUS** work on negotiating criteria of good quality work
- ▶ **Debiasing work**
- ▶ Remind educators to be mindful of the type of feedback they provide (students are aware of biases)
- ▶ Be careful with praise
- ▶ Try and balance the type of feedback we provide to students

**Our reluctance to  
welcome feedback  
may also be because of  
discrepant messages  
we may be receiving**



*I am impressed with your presentation! Your presentation was clear, engaging, and informative.*

*You managed to capture everyone's attention from beginning to end, and the visuals you used were stunning.*

*I also appreciate how well you worked with your group, ensuring that everyone had a chance to contribute, and that the presentation flowed smoothly.*

*Your delivery was confident, and you conveyed your ideas with ease. Overall, you did an outstanding job, and I am confident that you will do just as well, if not better, in your final presentation. Keep up the great work!*

*I appreciate your effort during the presentation. However, some areas require some improvement.*

*Firstly, I think your delivery could have been more engaging. Varying your tone and pace could help to keep the audience interested.*

*Secondly, some of the slides seemed cluttered, which made it hard to focus on the main points. You could consider simplifying some of the visuals or breaking them up into smaller pieces.*

*Finally, I think you could have provided more context to some of the concepts you were discussing. Some of the audience members seemed confused, so it might be helpful to explain things a bit more clearly.*

*Overall, I think you have a lot of potential and with a few adjustments, your final presentation will be better.*

1. Students were randomly assigned to two conditions:

	Teacher's message	Peer's message
Condition 1	Evaluative/ positive	Suggestive/ neutral
Condition 2	Suggestive/ neutral	Evaluative/ positive

2. After reading the two discrepant messages, the participants were asked to:

- report emotions that would be elicited by this feedback,
- rate the utility, helpfulness, and the **intention to use the feedback.**



327 college students



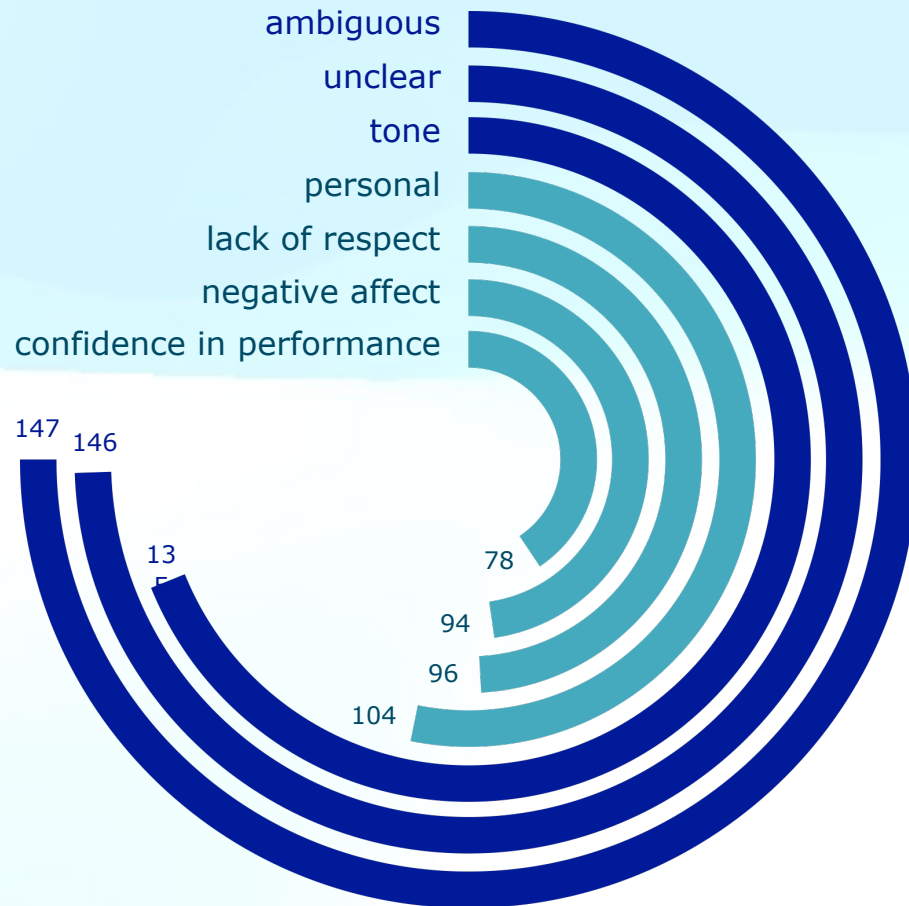
84% female

Compared to peer feedback, participants rated teacher feedback to be more helpful and useful with higher intention to use this feedback, regardless of the quality of the information provided in the message.

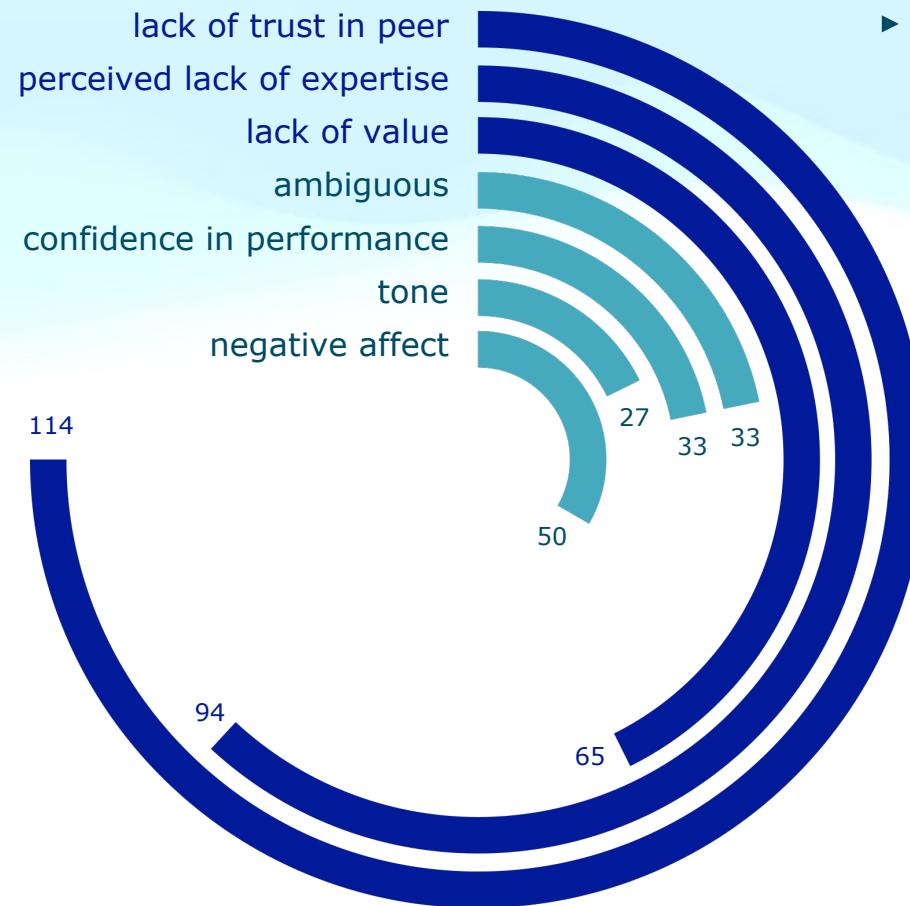


# REASONS FOR FEEDBACK REJECTION

## Teacher



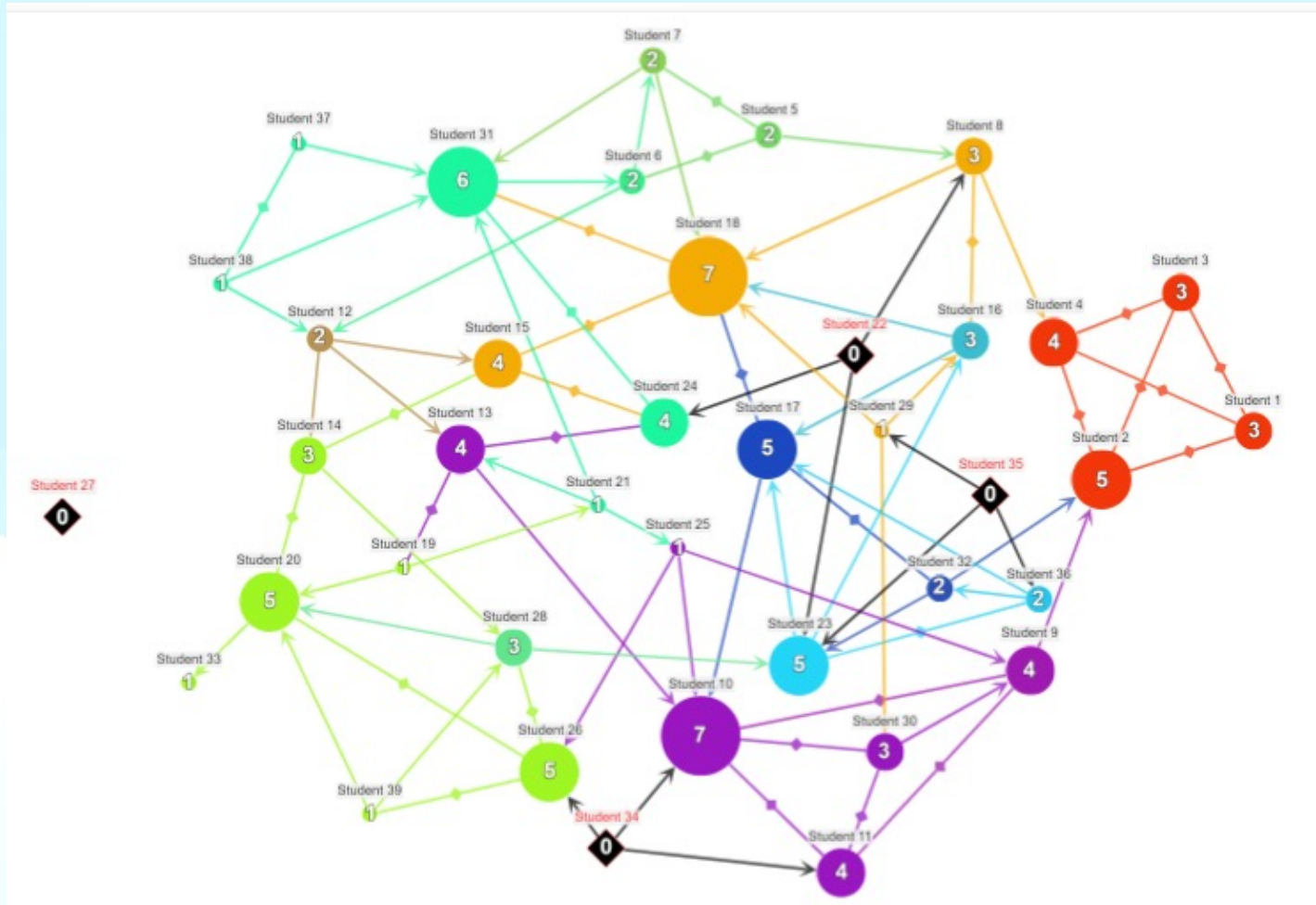
## Peer



- ▶ 196 students
- ▶ 1353 reasons;
- ▶ 2 raters

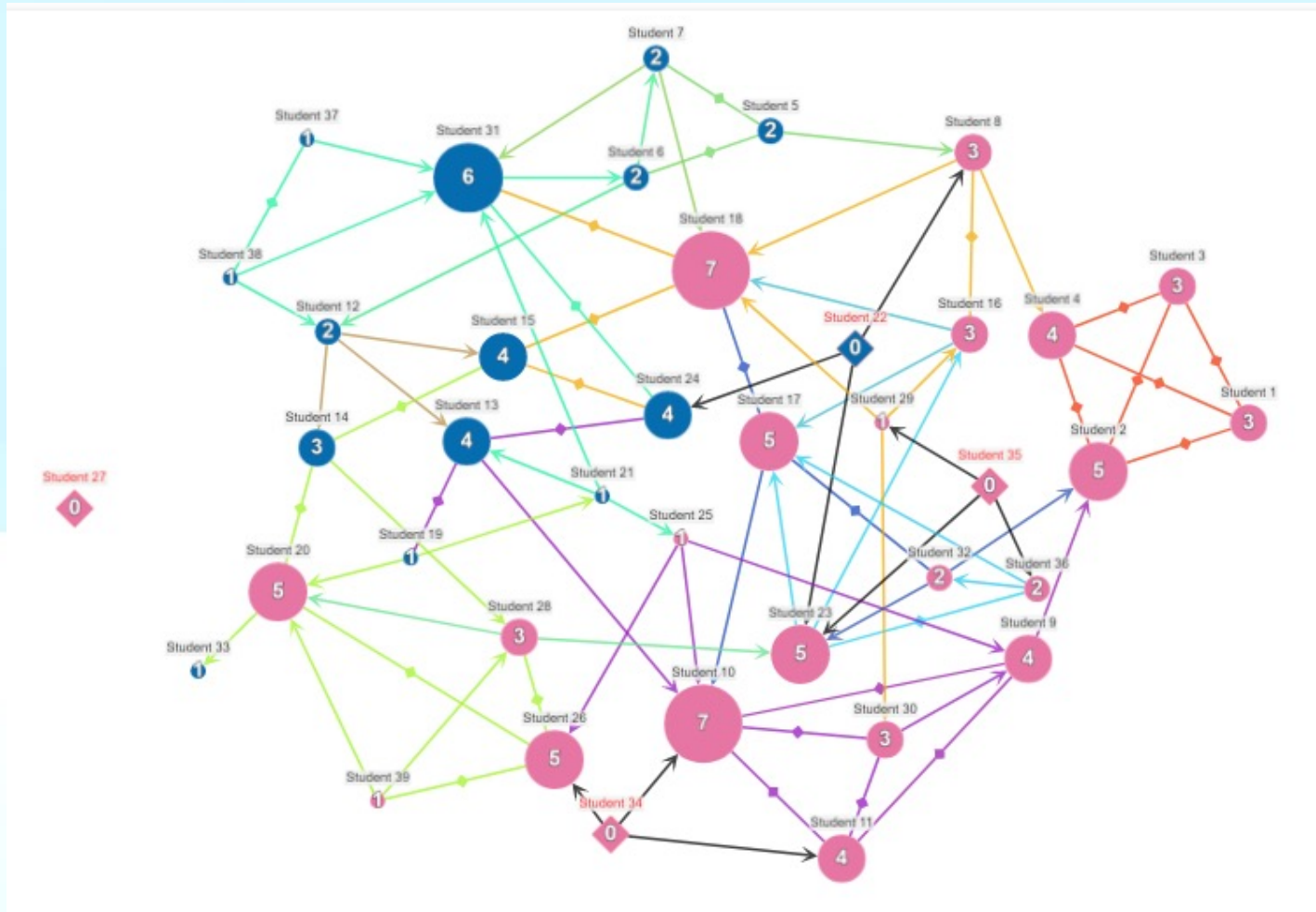
# WHOM DO YOU ASK FOR FEEDBACK ON SCHOOL TASKS?

- ▶ Number of peers who chose each student
- ▶ Arrows indicate if student-student relations
- ▶ Allow for early identification outliers
- ▶ Allows for identification of potential peer leaders



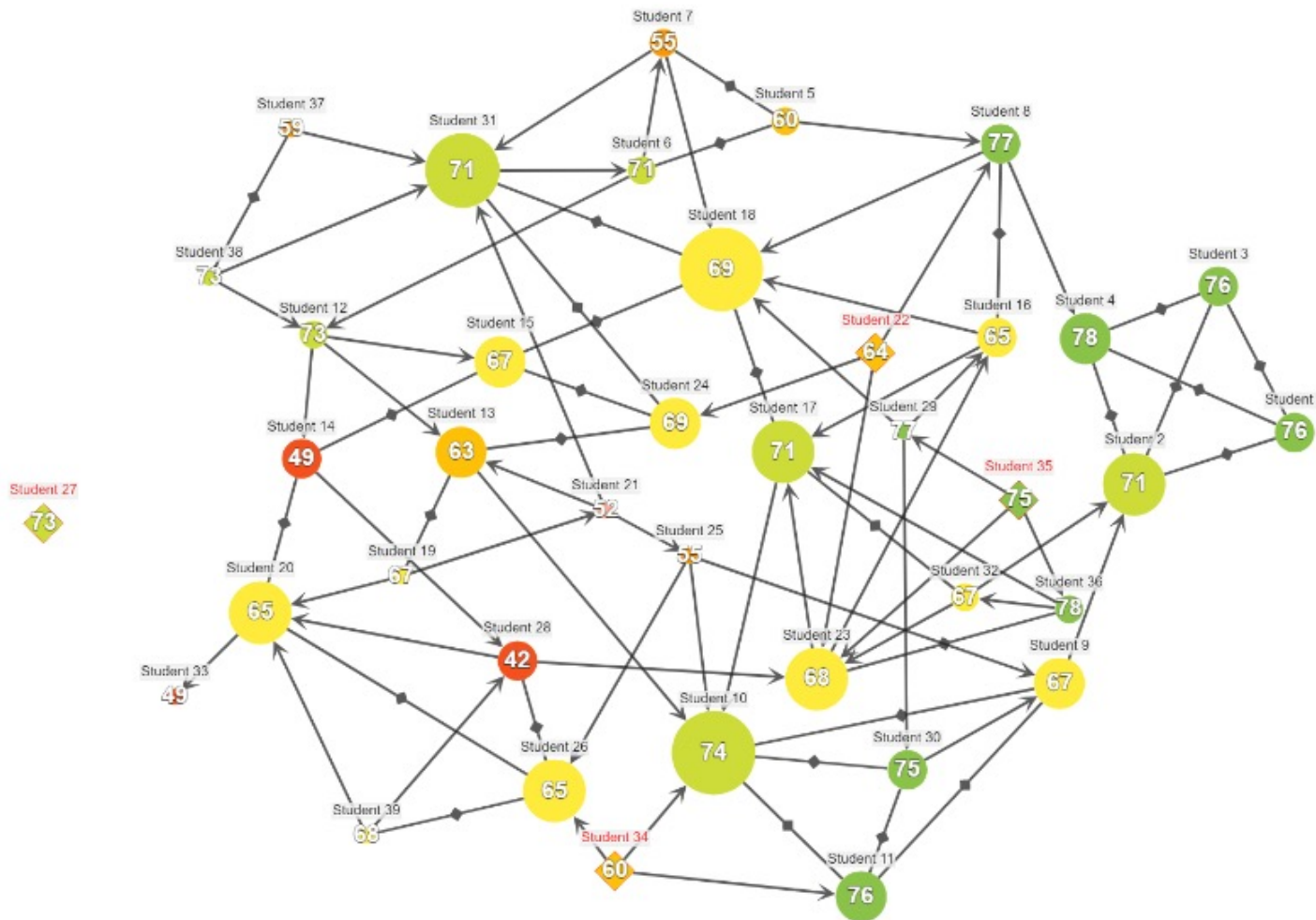
# GENDER LAYER

- ▶ Layering on additional gender data
- ▶ Allow teachers to understand the inter-gender mixing in their class
- ▶ ...hence potentially highlighting students who can help bridge the inter-gender integration gap present in class.

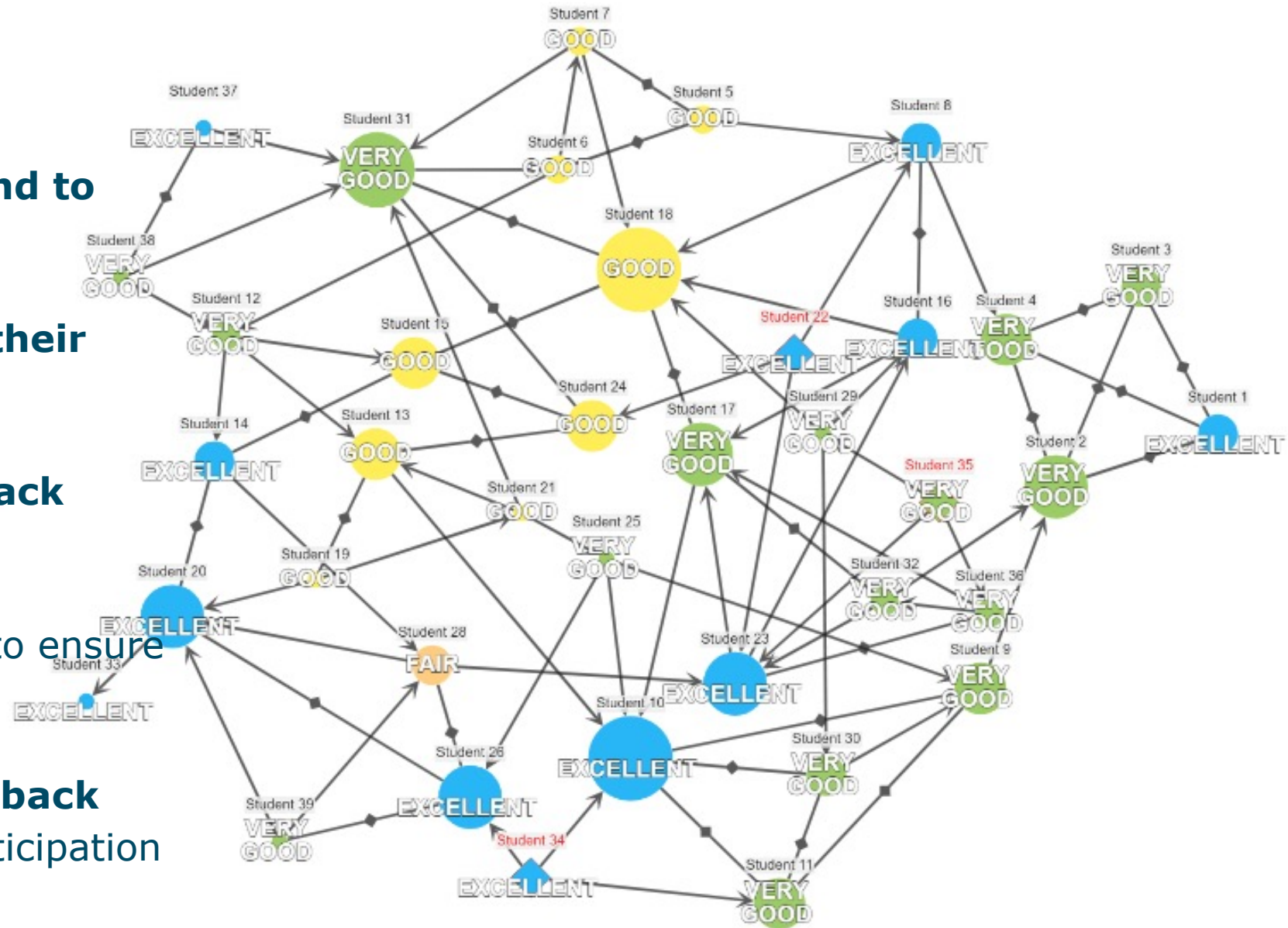


# ACADEMIC PERFORMANCE LAYER

- ▶ Layering on additional academic results data
- ▶ Useful in aiding teachers to determine seating arrangement of their classes to achieve positive learning outcomes



- ▶ **We know that students tend to reject** peer feedback
- ▶ We also know that they **ask their peers for feedback**
- ▶ **Understanding peer feedback dynamics** is critical
- ▶ **Implementing strategies** to ensure positive feedback culture
- ▶ **Facilitating a smooth feedback flow** to guarantee active participation from all students.



# COMMENTS VS EXEMPLARS



TEACHER  
COMMENTS

vs

ANNOTATED  
EXEMPLARS



no difference

The average  
time per essay:

**12** minutes

The average time  
per exemplar:

**20** minutes

# SO WHAT DOES THIS ALL MEAN?

Encouraging students to generate self-feedback using various instructional tools is **viable strategy**

There is evidence of transfer to a new task, so **learning** is taking place

**Explicit instruction** should be provided on how to use these tools

Exemplars, rubrics and other tools that encourage students' self-feedback generation **work as well AND save time**

# INDIVIDUAL CHARACTERISTICS

## CURRENT PERFORMANCE

### Feedback message

Timeless  
Level of Detail  
Comprehensibility  
Accuracy  
Tone  
Focus  
Function

## LEARNER

### Individual Characteristics

Ability	Self-efficacy
Receptivity	Motivation
Expectations	Personality

### Cognitive Processing

Do I understand the  
feedback?

## SOURCE

Teacher  
Computer



# RECEPTIVITY TO INSTRUCTIONAL FEEDBACK

Experiential  
attitudes



*I enjoy learning how well I did on tests or assignments*

Instrumental  
attitudes



*Instructor's feedback is very effective in helping me enhance my performance*

Cognitive  
engagement



*I understand how to use the feedback that I get*

Behavioral  
engagement



*I rework my assignments based on the feedback I receive*

**Predicts grades & varies by gender**

Lipnevich et al. (2021); Lipnevich & Lopera-Oquenda (2022)

# COLLEGE STUDENTS IN USA AND NZ

Lipnevich et al., (2021)

All correlations significant  
at  $p < .01$

## RECEPTIVITY AND PERSONALITY

- ▶ **Conscientiousness** ( $0.310 < r < 0.362$ ) and **Openness** ( $0.224 < r < 0.284$ ) were the strongest predictors of the four factors of receptivity
- ▶ **Agreeableness** yielded weak links with the RIF factors ( $0.164 < r < 0.209$ )
- ▶ **Neuroticism** negatively predicted behavioural engagement ( $r < -0.125$ )

**We were not simply reproducing facets of the Big Five personality dimensions.**

# RECEPTIVITY AND OUTCOMES

RIF replicated in **7 countries** at both high school and university levels

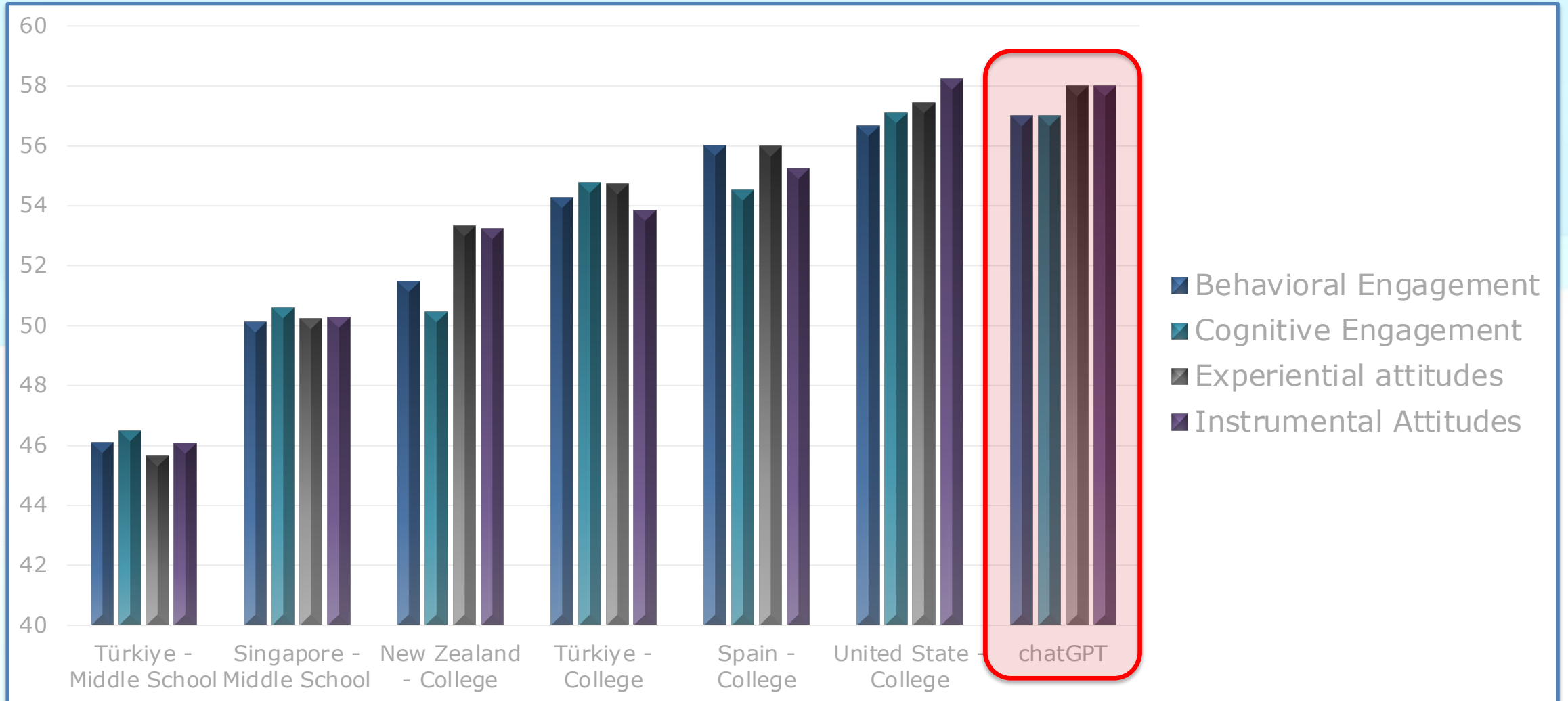
- ▶ Class-based interventions
- ▶ Enhance the value of feedback
- ▶ Teach specific strategies for cognitive, affective, behavioral engagement



# Receptivity by country and academic level



# Receptivity by country and academic level



# DOCTORS AND FEEDBACK: SURGEONS vs RADIOLOGISTS

## RADIOLOGISTS

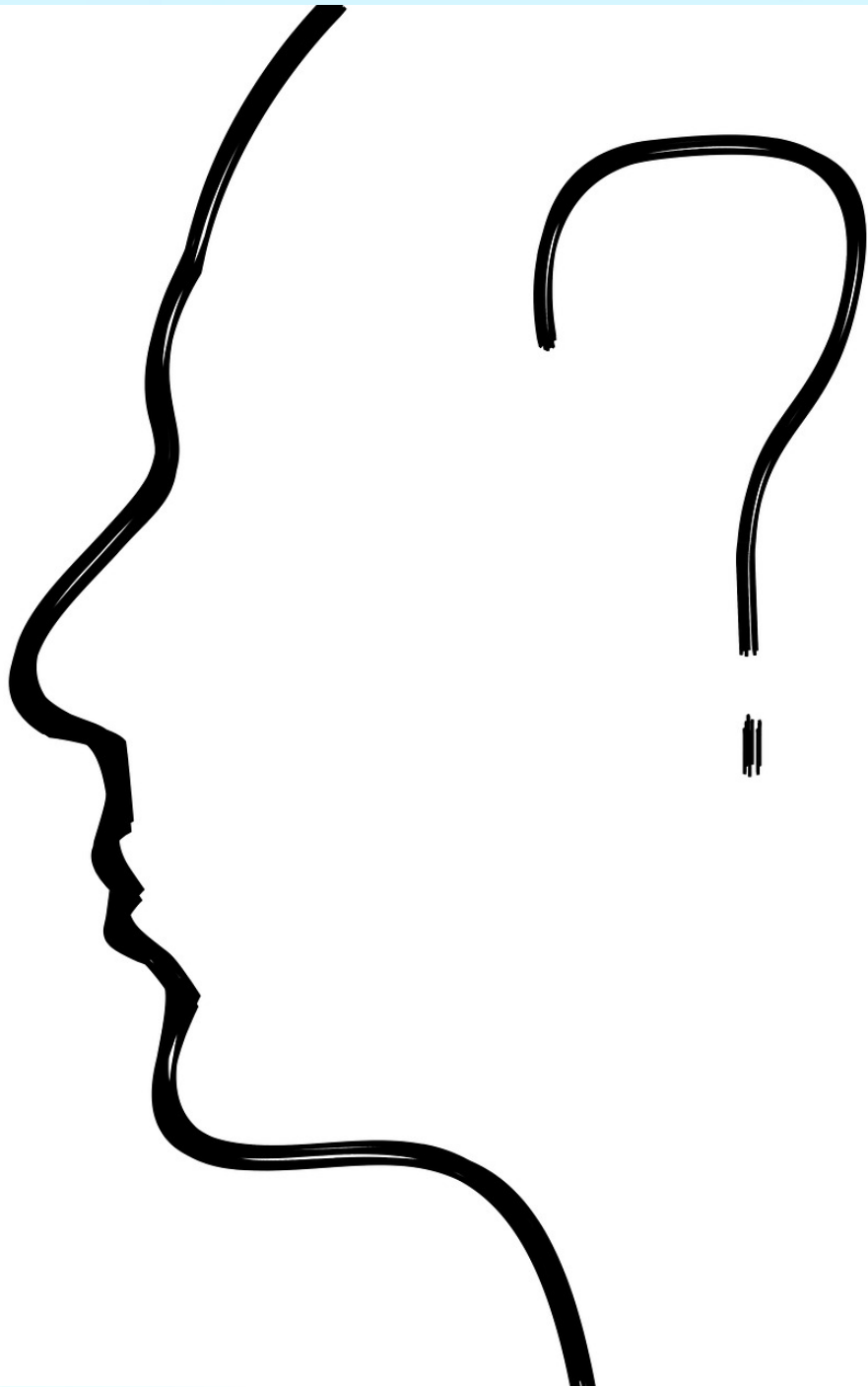
Years of experience  
didn't relate or even predicted  
successful diagnosis

## SURGEONS

Years of experience  
positively predicted  
successful outcome



# FEEDBACK



**WHY DIDN'T  
YOU TELL ME?  
&  
WHEN DID I  
ASK?**

**- represent lost opportunities**



# Where now?

- Fostering a culture of open communication and safety
- Understanding that feedback is provided with the clear intention to **facilitate growth**
- Reframing feedback as an **opportunity** and enhancing **receptivity**
- **Conducting studies** to help us understand conditions, mechanisms and dynamics
- And helping educators with this task by providing **research-driven recommendations**

# THANK YOU!



Carmen Florentin



Felix Eßer



Başak Çalık



Ligia Tomazin



Carolina Lopera-Oquendo



Nikita Khalid



Mi Jin Park



Jonathan Gutterman

# REASONS FOR TAKING THE COURSE

N = 8178 responses

## 1. **PERSONAL INTEREST:**

Interested in climate change. — Curiosity about the Earth and its behavior. — Love for nature and the environment.

## 2. **PROFESSIONAL DEVELOPMENT:**

Relevance to current job. — Interest in working in environmental conservation. — Desire to contribute to environmental sustainability.

## 3. **LEARNING PURPOSE:**

Desire to gain knowledge and understanding of the Earth. — Interest in deepening knowledge about climate change. — Intent to have a deeper understanding of global warming.

## 4. **EDUCATIONAL REQUIREMENT:**

Course requirement for a science class. — Part of an Environmental Studies major. — Studying Geography as a part of the curriculum.

## 5. **SOCIAL RESPONSIBILITY:**

Interest in educating and raising awareness among the public. — Intent to communicate effectively about climate change. — Concern about the impact of climate change on human life and the planet.

## 6. **MISCELLANEOUS:**

Cultural or family influence, such as being influenced by a family member's profession or passion for nature.