

# Human Touch v. Digital Edge: Exploring Preservice Teacher Perspectives on AI-Assisted Feedback

This presentation aims to explore how preservice teachers perceive the use of AI-assisted feedback in their own learning experiences and the implications of these experiences on future adoption of AI in education.

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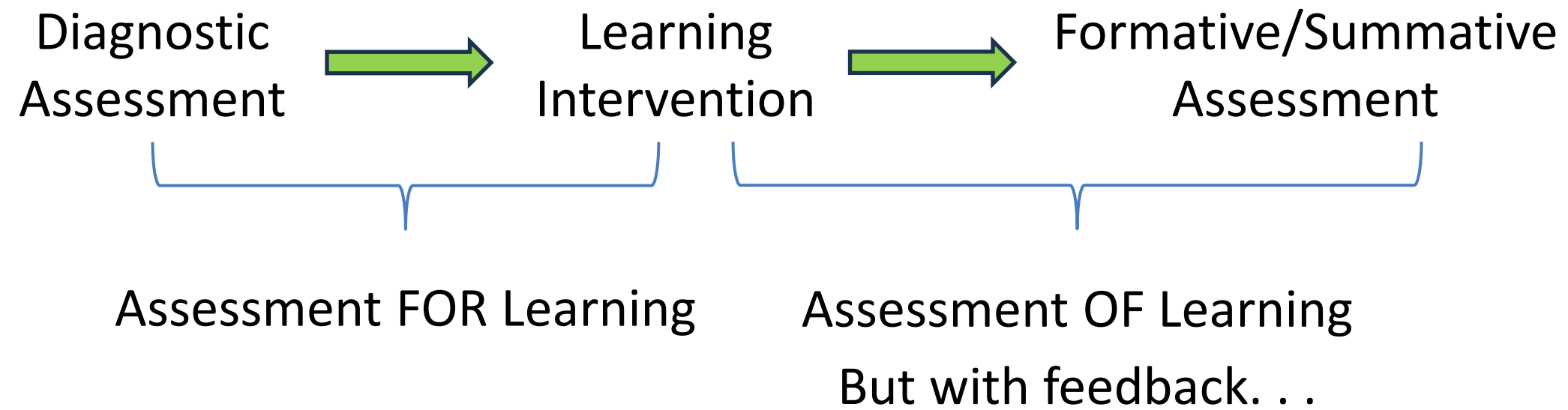
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# The Problem

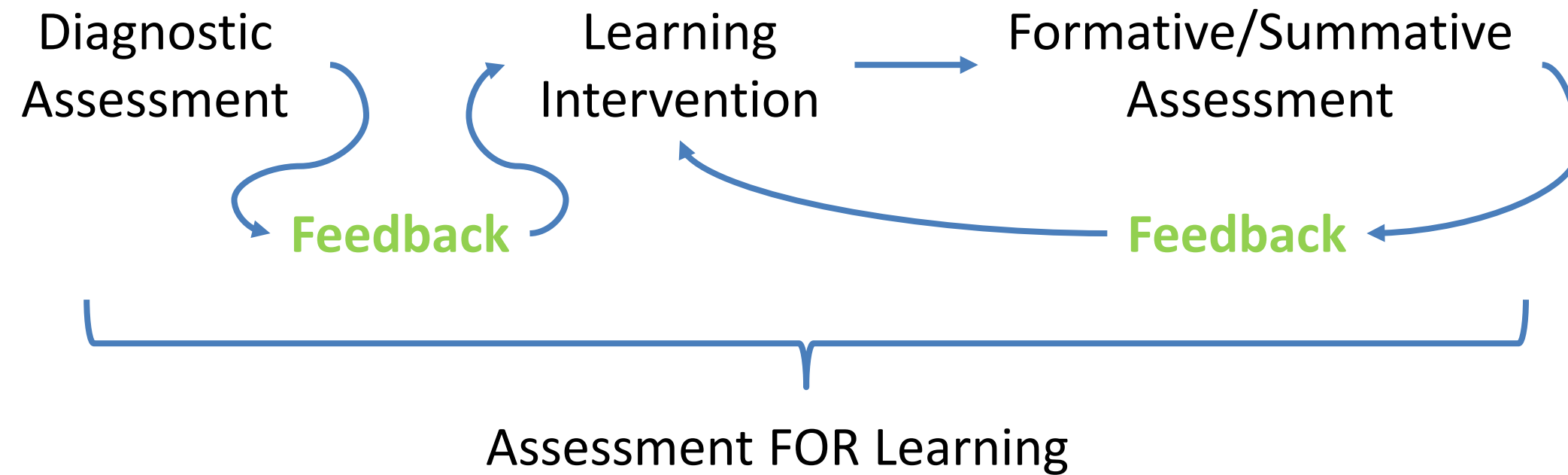
- Data and Assessment in Secondary Contexts





# The Problem

- Data and Assessment in Secondary Contexts





# The Problem

How do we provide valuable, personal, and specific feedback to every student?

We don't.

We can't.

We do nothing else but grade...

What feedback do we provide to students who do well?





# The Problem

How can we provide meaningful feedback to students, regardless of their demonstration of mastery, that helps them learn?

- Leverage Generative AI



# Purpose

- How will preservice teachers feel about their instructor using AI-assisted feedback?
  - How will they rate the quality of the feedback?
  - What feelings will they have regarding the use of AI to provide them with feedback?





# Framework

- **Transparency.** The syllabus and instructor made it known that generative AI (ChatGPT) was used to provide feedback on some assignments.
- **Data Privacy.** The instructor was careful to never feed identifying information into the chatbot. Data entered into chats was not used to “improve the model for everyone.”
- **Bias and Fairness.** The instructor was careful not to include any information about expected outcomes/performance into the chat prompts, outside of what the assignment should include according to assignment directions. Demographic data for students, the school, etc. was not included in the prompt, outside of “future teacher leaders” or “a history of excellent educator preparation.”
- **Human Oversight.** The instructor was always “the human in the loop” comparing feedback to the assignment submission and adding to, or revising, feedback as needed.

# Participants



- **107 Junior/Senior** secondary education majors focused on a variety of content areas.
- **Enrolled in Data and Assessment in Secondary Contexts**
- **Enrolled in Classroom Management**
- **Collected Over Two Semesters**
- **Completed Various Assessments.** Discussion Boards, Quizzes, Projects, Reflections, Assignments.
- **In-Class Survey** filled out in class, Likert-style items (6-point) plus other selected response and constructed response items.



# Input

## PROMPT:

Please write feedback on an assignment according to the following guidelines:

You are providing students seeking a degree in education and teacher licensure with feedback on an assignment about valid assessments in their content area. The learning is part of a course on data and assessment in secondary teaching contexts. Students enrolled in the course are on pace to become teacher leaders through leading in the classroom.

Write the feedback as if you are an award-winning professor of education teaching a course about the importance of assessment for learning and using assessment data to guide the instructional process. The assignment should provide the following: 1. 2. 3. 4. 5. 6. 7.

The feedback should highlight what their assignment demonstrates about their capacity for understanding the importance of assessment validity in their content area and their ability to make valid inferences.

The feedback should not exceed 5-6 sentences. Here is the assignment:

# Output



## FEEDBACK:

Your assignment demonstrates a strong understanding of assessment validity within the context of music education. You effectively show how inferences can be made from students' rehearsal practices and their ability to connect with an audience, highlighting the link between practice and expressive performance. Your reflection on the distinction between content standards and performance standards is insightful, showing a nuanced understanding of how to assess both skill level and performance quality. The examples of valid and invalid inferences are well-chosen, illustrating the challenges of assuming expertise based on participation in selective ensembles. Your descriptions of face, content, and criterion validity are practical and directly relevant to the music classroom, emphasizing the need for assessments that truly reflect the complexities of musical performance. This reflection highlights your ability to create assessments that not only measure technical skills but also support expressive development in your students.



## Revised Output



### FEEDBACK:

Your assignment demonstrates a strong understanding of assessment validity within the context of music education. You effectively show how inferences can be made from students' rehearsal practices and their ability to connect with an audience, highlighting the link between practice and expressive performance. Your reflection on the distinction between content standards and performance standards is detailed, showing a critical understanding of how to assess both skill level and performance quality. The examples of valid and invalid inferences are well-chosen, illustrating the challenges of assuming expertise based on participation in ensembles.

Your descriptions of face, content, and criterion validity are practical and relevant to the music classroom, emphasizing the need for assessments that truly reflect the complexities of musical performance. This assignment highlights your ability to create assessments that not only measure technical skills but also support expressive development in your students.



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# Findings, Feedback

- **Comfort with Assessment:** 4.9/6
- **Comfort with Providing Feedback:** 4.92/6.0
- **Comfort with Technology:** 4.91/6.0
- **Satisfaction with Feedback Quality:** 5.69/6.0
- **Satisfaction with Feedback Quantity:** 5.59/6.0
- **Ability of Feedback to Improve Learning:** 5.20/6.0
- **Ability of Feedback to Promote Professional Practices:** 5.25/6.0
- **Okay with instructors using AI for Feedback:** 4.51/6.0
- **Interest in Using AI to Provide Students with Feedback:** 4.01/6.0





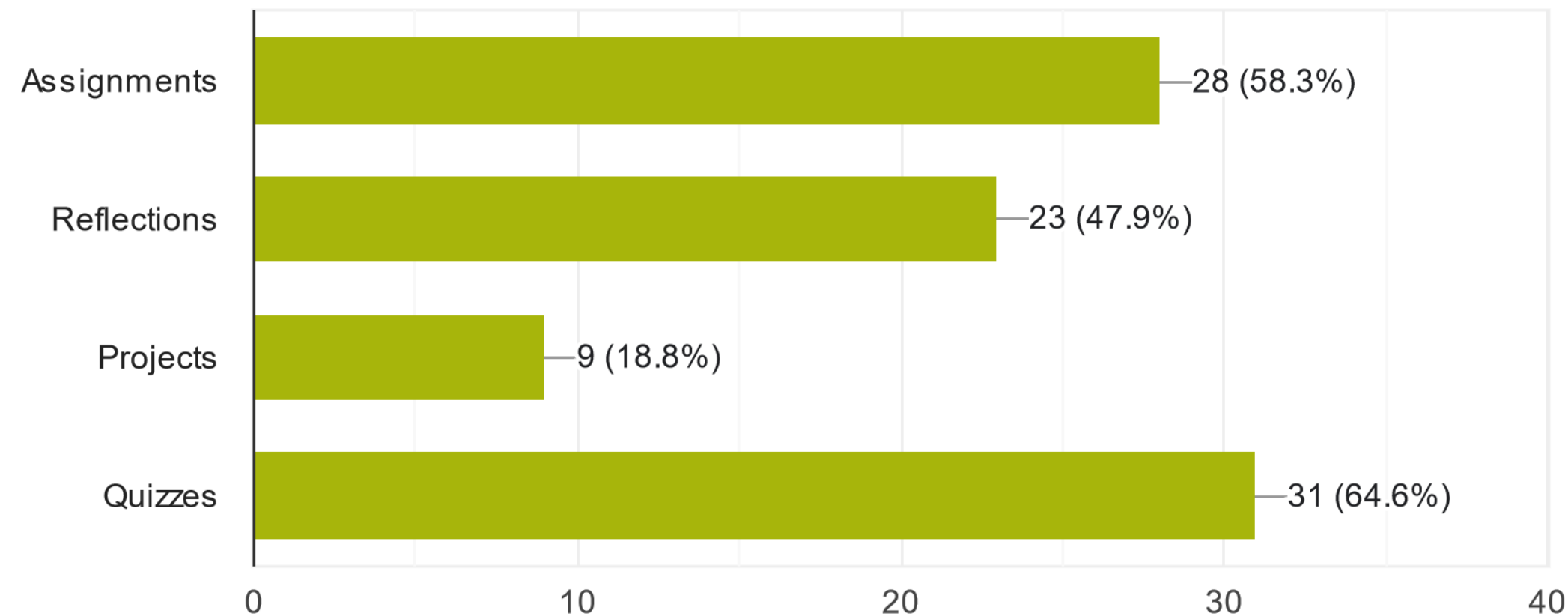
# Findings, AI Use Class 1



N = 48

If you had to guess, which of the following assessments provided AI-assisted feedback?

48 responses



Assignments:  
100% AI-Assisted (58.3%)

Reflections:  
100% AI-Assisted (47.9%)

Projects:  
0% AI-Assisted (18.8%)

Quizzes:  
0% AI-Assisted (64.6%)

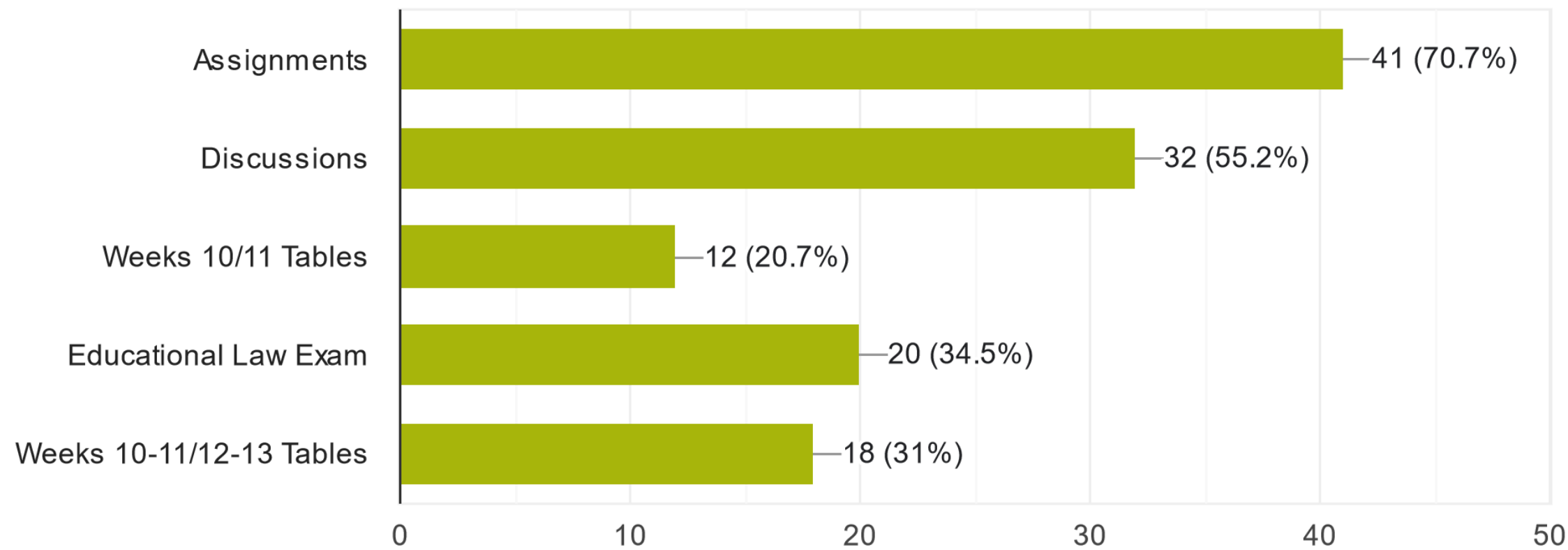


# Findings, AI Use Class 2



If you had to guess, which of the following assessments provided AI-assisted feedback?

58 responses



N = 58

Assignments:  
0% AI-Assisted (70.7%)

Discussions:  
100% AI-Assisted (55.2%)

Weeks 10/11 Table: (N=33)  
0% AI-Assisted (36.3%)

Law Exam:  
0% AI-Assisted (64.6%)

Weeks 10-11/12-13 (N=25)  
100% AI-Assisted (72%)

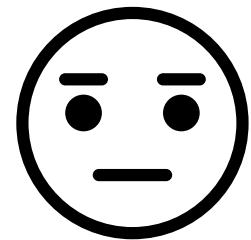




# Findings, Emotions



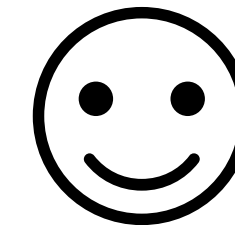
**Angry – 3.77%**



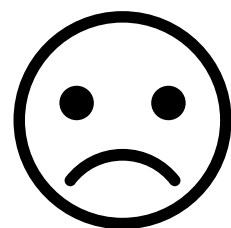
**Neutral – 54.72%**



**Sad – 2.83%**



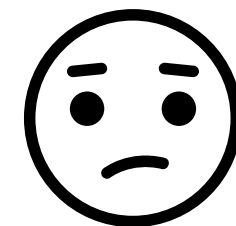
**Happy – 2.83%**



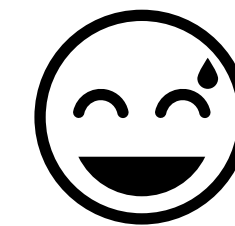
**Cheated – 13.21%**



**Impressed – 42.45%**



**Confused – 7.55%**



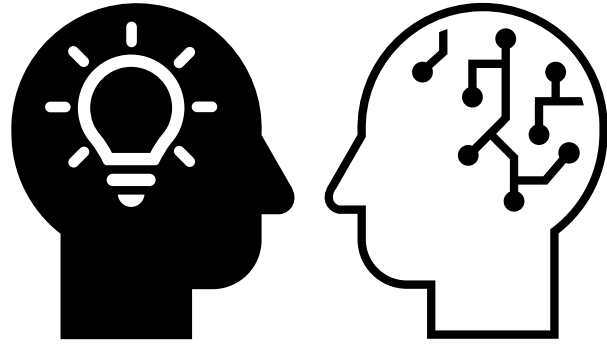
**Curios – 46.23%**

# Findings, Accuracy

- **Cheated:** Confused (1), Neutral (1), Unsure (2), Angry (3), Impressed (2), and Curious (1)
- **Cheated/Sad/Angry:** Correctly ID'd AI use 25% of the time.







## Implications

- **Better Transparency.** More clearly communicate which assessments are using AI-assisted feedback. Only 57.5% remembered that feedback was AI-Assisted.
- **Students Are Highly Satisfied.** Generally, students felt highly positive about the quality (5.69) and quantity (5.59) of feedback as well as its effectiveness for learning (5.2 & 5.25).
- **Some Negative Sentiment.** Could be due to general negative dispositions (1 for sure). Less accurate at determining AI than purely guessing. Only 2 students had ratings below a 5/6 for quality, quantity, learning, or general satisfaction (Quantity = 4/6).
- **Clarify Human Oversight.** Model and explain how the “Human in the Loop” applies to feedback. Explain whether there is actually a time save overall, or only for modified outputs. In general interest in future use was 4.01/6.0.
- **Continue to Seek Feedback.** Include such considerations in future research.



# MY CONTACT

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THANK YOU