

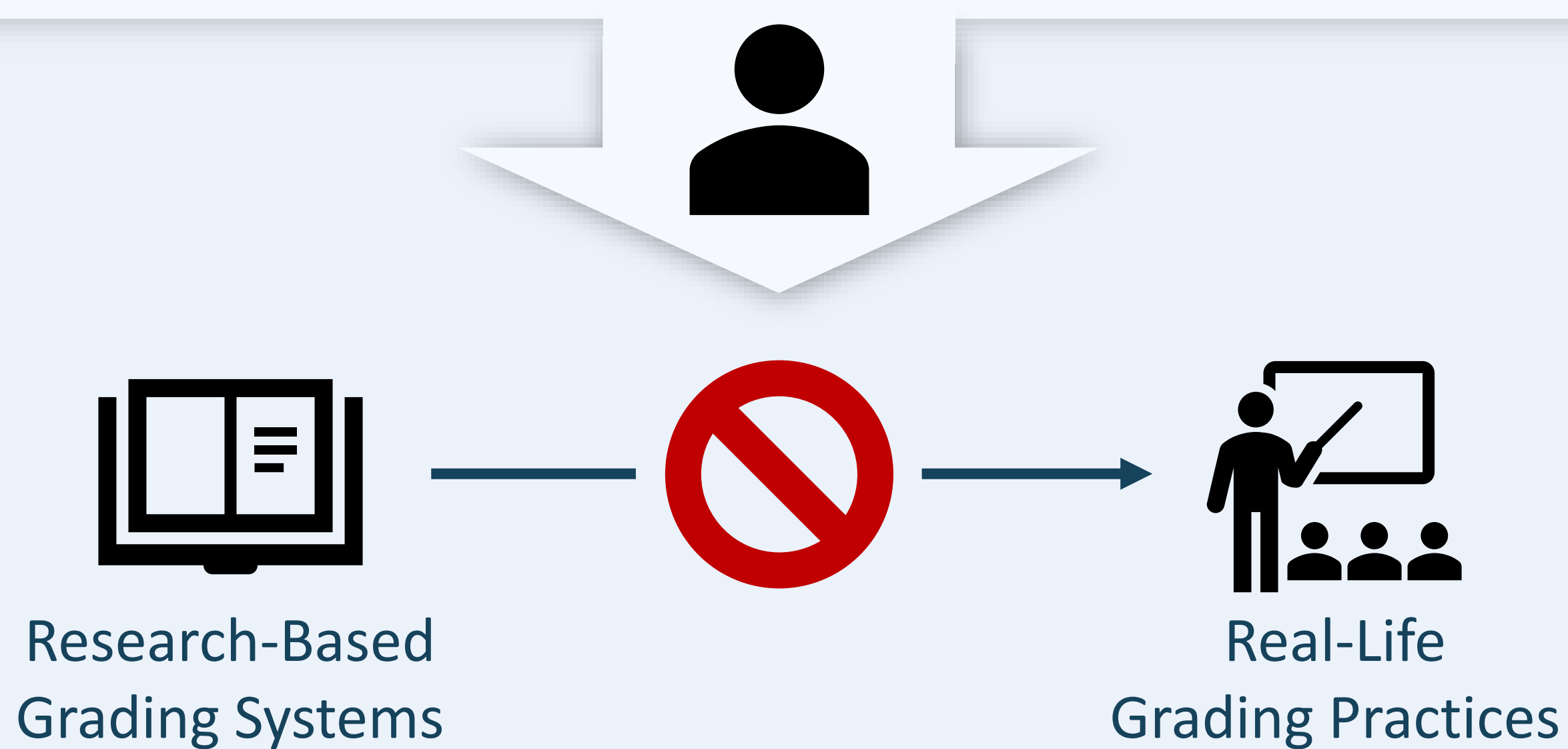
# Investigating Faculty Motivation for Grading in Math & Physics

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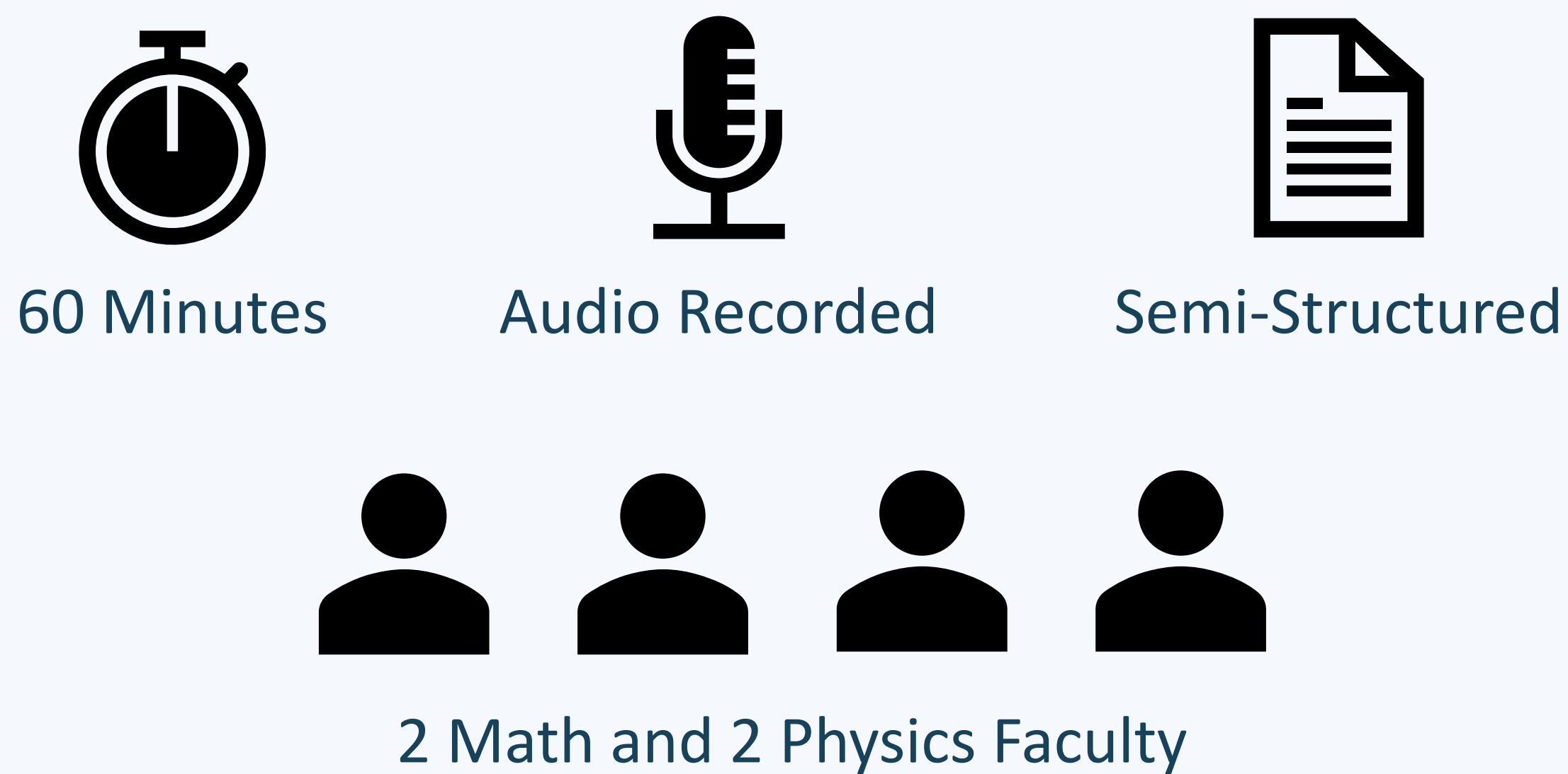
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## Project Goal

Explore faculty rationale behind selecting assessment and grading systems for courses.

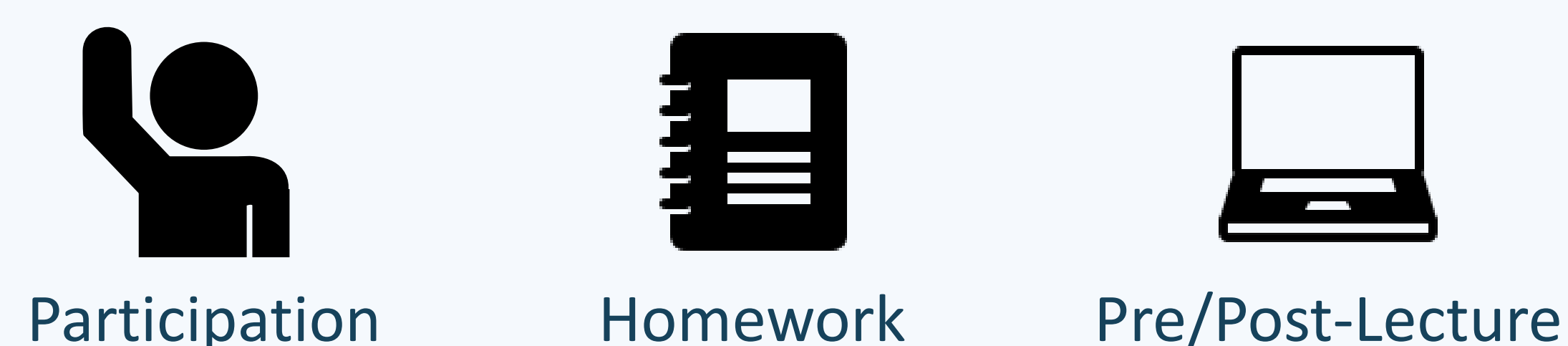


## Interview Methods

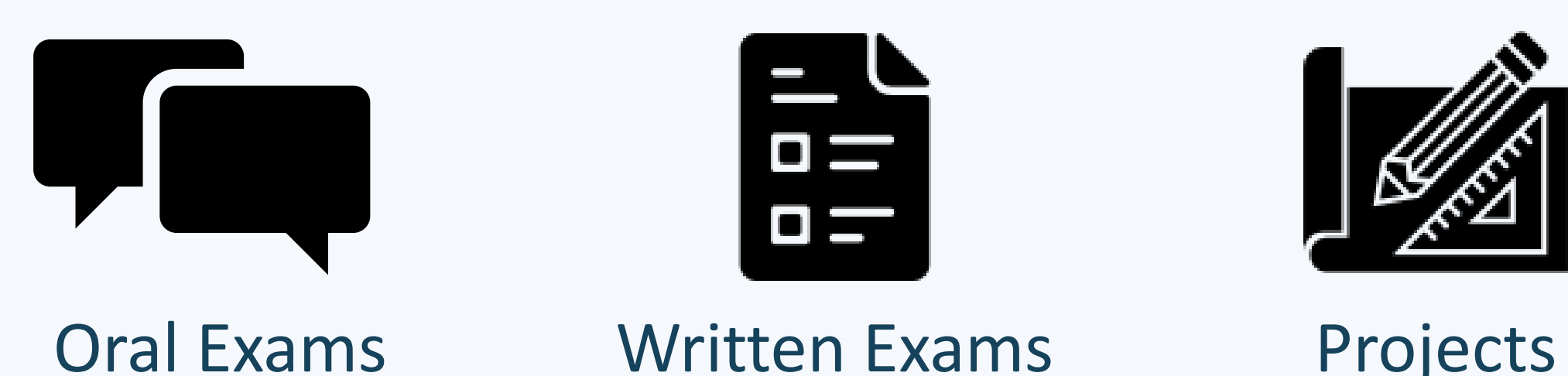


## Alignment with Grading Criteria

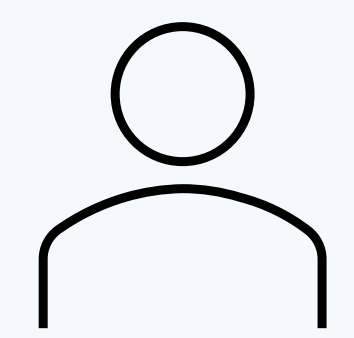
### Process



### Product



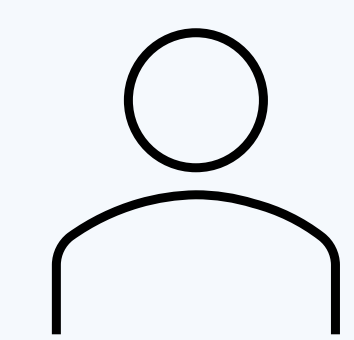
## Emergent Themes



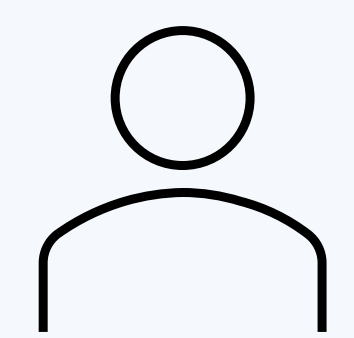
Ease of Grading

"We have so few, uh, graduate teaching assistants that we've been forced, and some of us at least. I know that others, I commend them for the effort they put in to, you know, give direct feedback to students. But, um, some of us have resorted, you know, **out of necessity**, to an online homework system." — *Participant P1*

"Whereas for the **higher-level class**, it was like there are things that I'm not measuring exactly like are you reading the textbook and, uh, like are you actively trying problems outside of the ones that I specifically asked you? And so yeah, I hope that **there's some level of maturity** that is reflected in the, uh, grading breakdown" — *Participant M1*



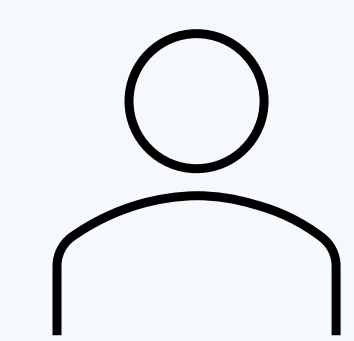
Assumed Maturity



Feedback

"Usually for 20-minute exam, I **use at least the same time**, probably more, to just **discuss the solutions**. To discuss what are possible approaches to solve it and what were the difficulties and challenges and all these things." — *Participant P2*

"So if A is excellent, B is very good, C is average and D is just passing, then how can it be that a whole class gets just A's? **I don't know what the purpose of grades are if everybody's excellent**. How can everybody be above average? That makes no sense to me." — *Participant M2*



Access to Success

## Conclusions

- Faculty considered product and process criteria but grading for progress was not articulated.
- Ease of grading motivated different feedback structures between large and small enrollment courses.
- Assumed levels of maturity accounted for less behavior-based grading structures in upper-division courses.
- Rank-based grading systems were inconsistent with faculty's definition of student learning goals.

### Acknowledgements

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### References

1. Anastasiya A. Lipnevich, Thomas R. Guskey, Dana M. Murano & Jeffrey K. Smith (2020) What do grades mean? Variation in grading criteria in American college and university courses, *Assessment in Education: Principles, Policy & Practice*, 27:5, 480-500, DOI: [10.1080/0969594X.2020.1799190](https://doi.org/10.1080/0969594X.2020.1799190)



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