How Do Students Know What They Are Expected to Learn? Let's Ask Them

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Center for Educational Effectiveness, Academic Assessment

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@curious_aggies
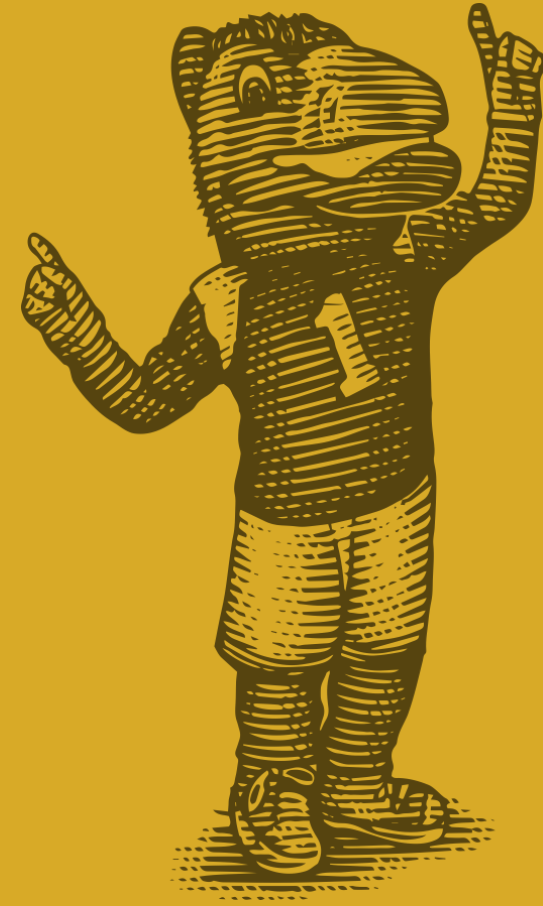
Welcome!

Introductions

Presenters, Researchers, & Project

UCDAVIS
Undergraduate Education

Main Campus
Davis, California

Tahoe Environmental Research Center
Incline Village, Nevada

UC Davis Health
Sacramento, California

Bodega Marine Laboratory
Bodega Bay, California

San Francisco

Los Angeles

102 UNDERGRADUATE MAJORS
29,111 undergraduates

96 GRADUATE PROGRAMS
6,734 graduate / professional

Meet the StARs

The **St**udent **A**ssessment **R**esearch fellows

Mahalia White   Laura Gomez   Luke Hazel

You Will Be Able To:

1. Explain how transparency-focused research can inform more equitable assessment practices;

2. Describe how student-led research is more inclusive;

3. Articulate potential uses of this research model in your own contexts; and

4. Articulate how you might use our results to inform decision-making in your own contexts.

Part 1:

Background & Key Constructs

How did we get here?

2019 Assessment Symposium

Montenegro & Jankowski (2020)

Pilot Project
(summer 2019)

The Project

The Curious Aggies project engages students in efforts to promote transparency and inclusivity in campus discussions about how to improve student learning.
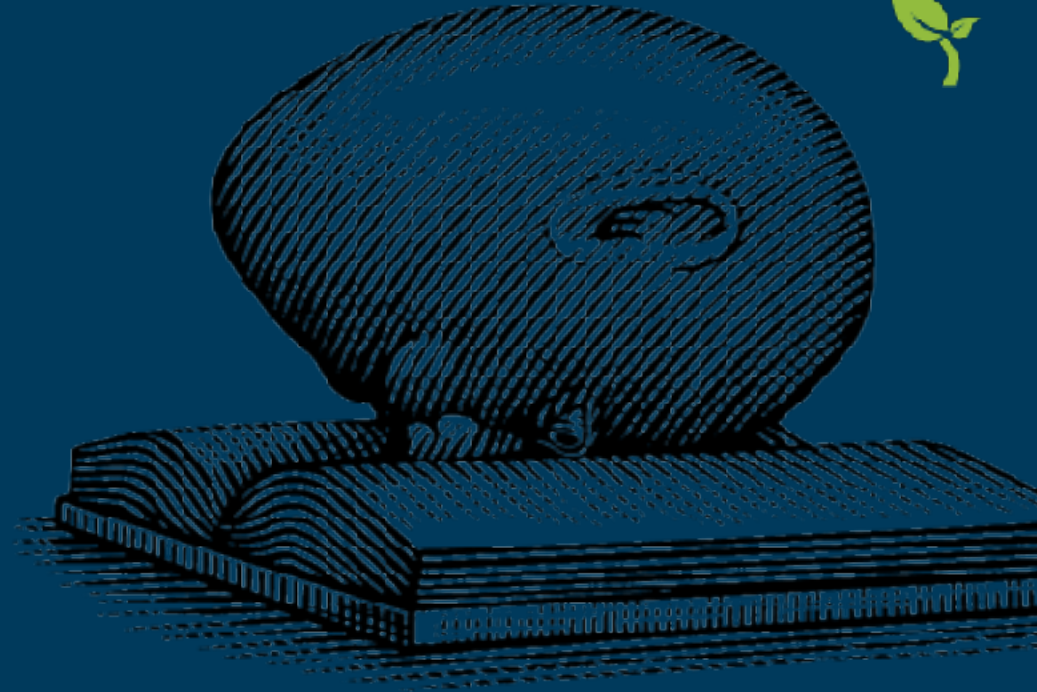
Key Constructs

Learning Outcomes

Transparency

Inclusivity

Part 2:

Research Questions & Data Collection Process

Research Questions

1. How do students find out what faculty expect them to learn?

2. What do students do when they don't know what faculty expect them to learn?

3. How does knowing or not knowing faculty expectations for learning influence students?

Mixed Methods Approach

Quantitative

- Survey (Qualtrics)
  - 5 questions

Qualitative

- Small-Group Interviews
  - 8 questions

Quantitative: Survey

- Co-designed and promoted by student research fellows
- Non-probability sampling
  - "snowball sampling" (Dillman, Smyth, & Christian, 2014)
- Promotion
  - 3 methods
- Completion
  - 464 students ove   0

Quantitative: Survey

- **How many courses** are you enrolled in this quarter?

- **How do you find out** what you are expected to learn in your courses?

- In general, **when you do not know what you are expected to learn** in a course, how frequently do you do the following?

Qualitative: Interviews

- Promoted and conducted by student research fellows
- Recruited through a question at the end of the survey
  - 95 students agreed to participate
- Completion (over 10 days in Mar 2020)
  - Total: 30 students in 17 interviews
  - Today: 17 students in 9 interviews

Qualitative: Interviews

- In your own words, please tell me how you find out what you're expected to learn in a course.

- What do you do when you aren't clear about a course's learning goals?

- How does knowing or not knowing the learning objectives of a course influence you?

Breakout Session 1

Potential Uses of the Research Model

Refer to the handout for the questions you'll discuss
(link in the chat)
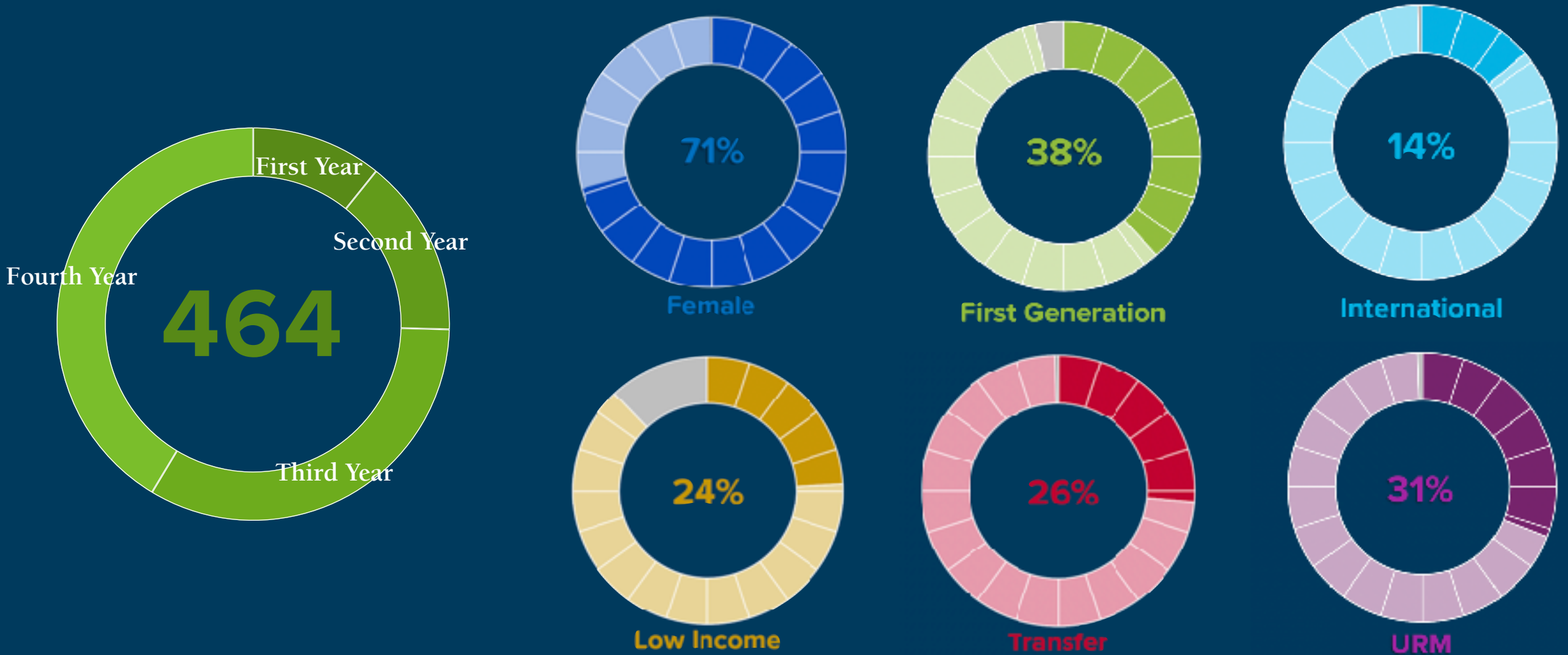
Part 3:

Findings

Who were our respondents?
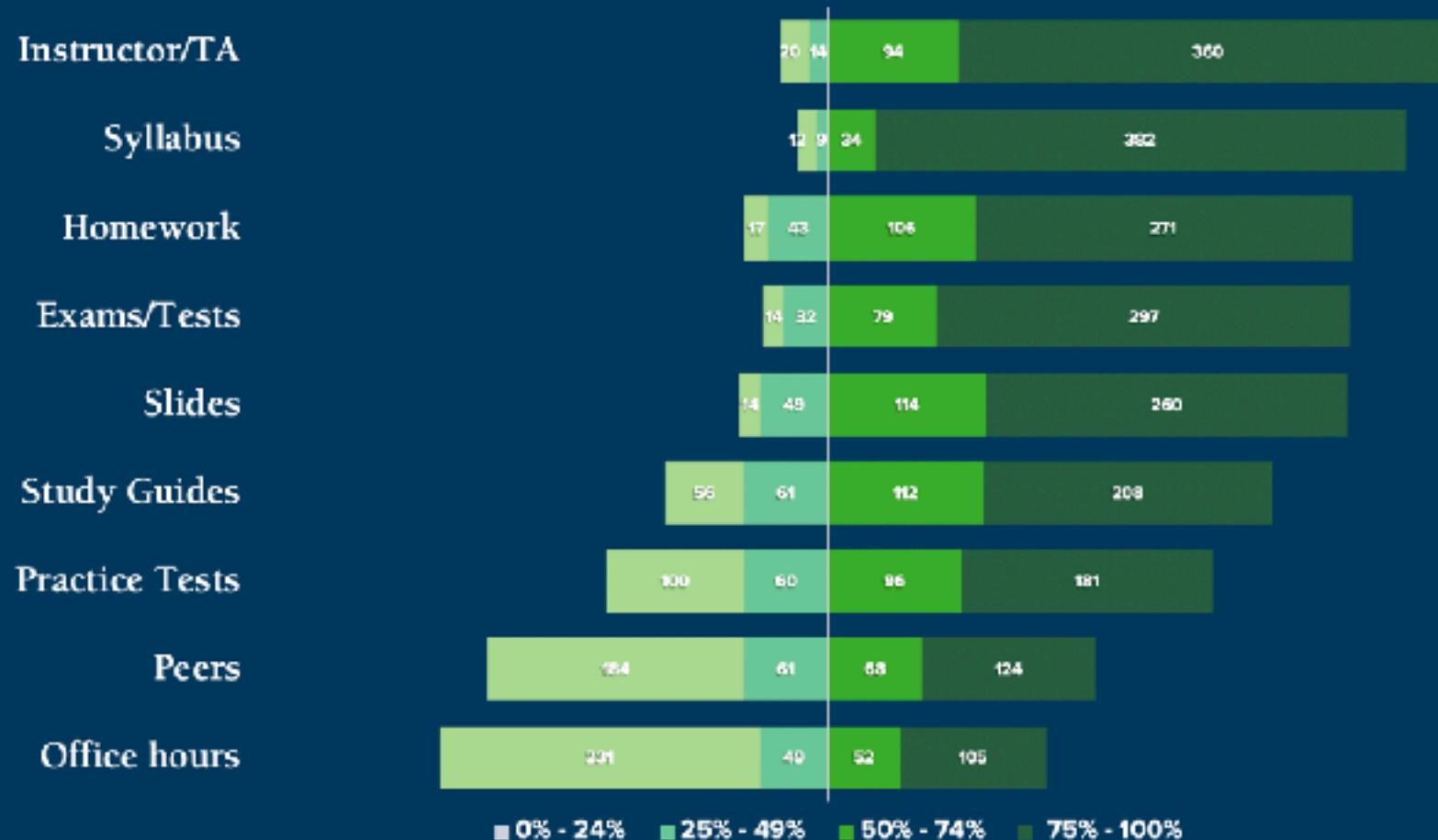
464

Who were our respondents?

464

First Year
Second Year
Third Year
Fourth Year

71% — Female
38% — First Generation
14% — International
24% — Low Income
26% — Transfer
31% — URM

How do students find out what they are expected to learn?

Proportion of Courses by Source Use

Instructor/TA: 20, 14, 94, 360
Syllabus: 12, 9, 34, 382
Homework: 17, 43, 106, 271
Exams/Tests: 14, 32, 79, 297
Slides: 14, 49, 114, 260
Study Guides: 56, 61, 112, 208
Practice Tests: 100, 60, 96, 181
Peers: 194, 61, 58, 124
Office hours: 231, 49, 52, 105

Legend: 0% - 24%, 25% - 49%, 50% - 74%, 75% - 100%

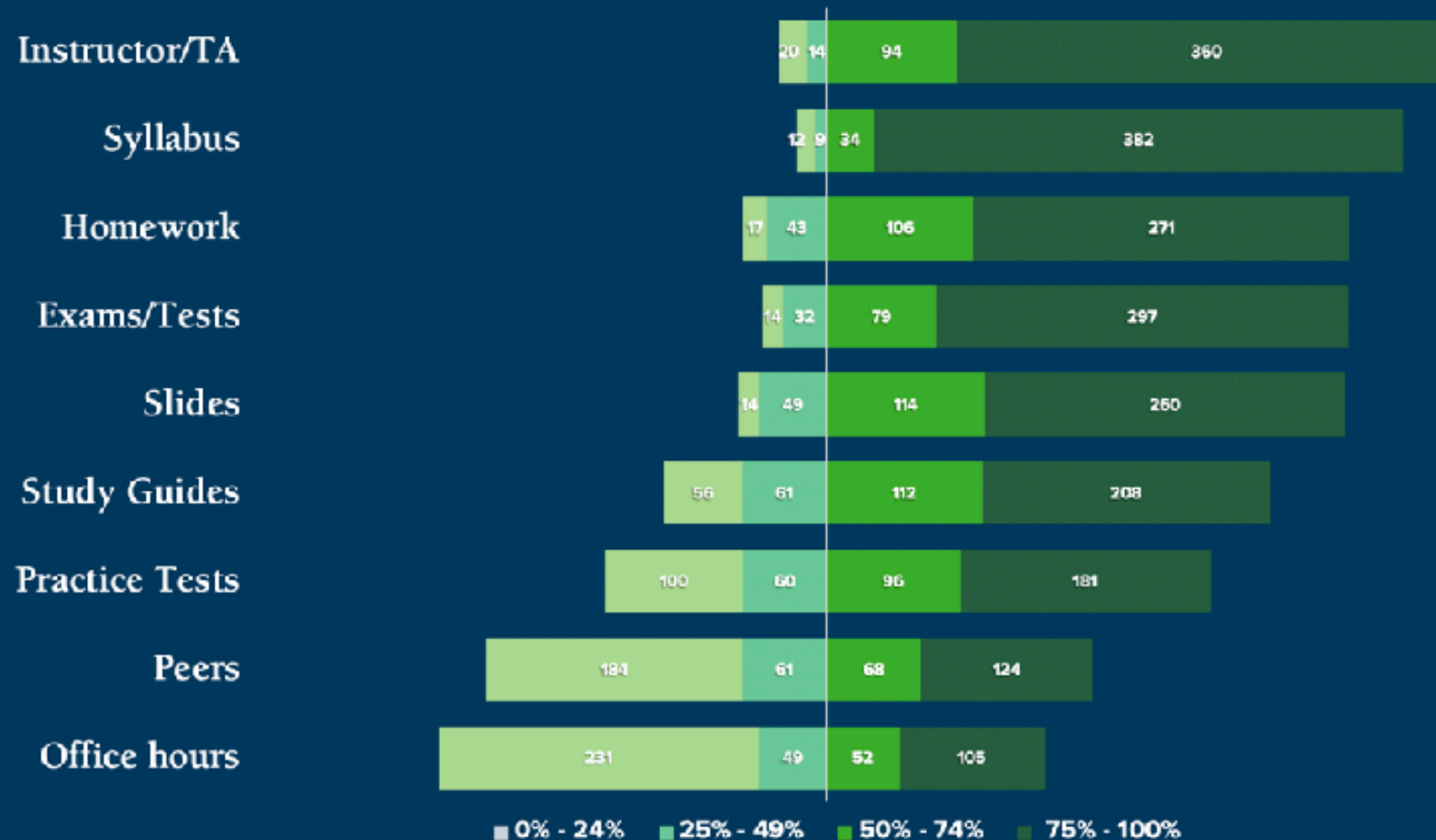*N = 437*
(survey respondents)

Proportion of Courses by Source Use

N = 437
(survey respondents)

24

How do students find out what they are expected to learn?

Proportion of Courses by Source Use

Source	0% - 24%	25% - 49%	50% - 74%	75% - 100%
Instructor/TA	20	14	94	360
Syllabus	12	9	34	382
Homework	17	43	106	271
Exams/Tests	14	32	79	297
Slides	14	49	114	260
Study Guides	56	61	112	208
Practice Tests	100	60	96	181
Peers	184	61	68	124
Office hours	231	49	52	105

■ 0% - 24% ■ 25% - 49% ■ 50% - 74% ■ 75% - 100%
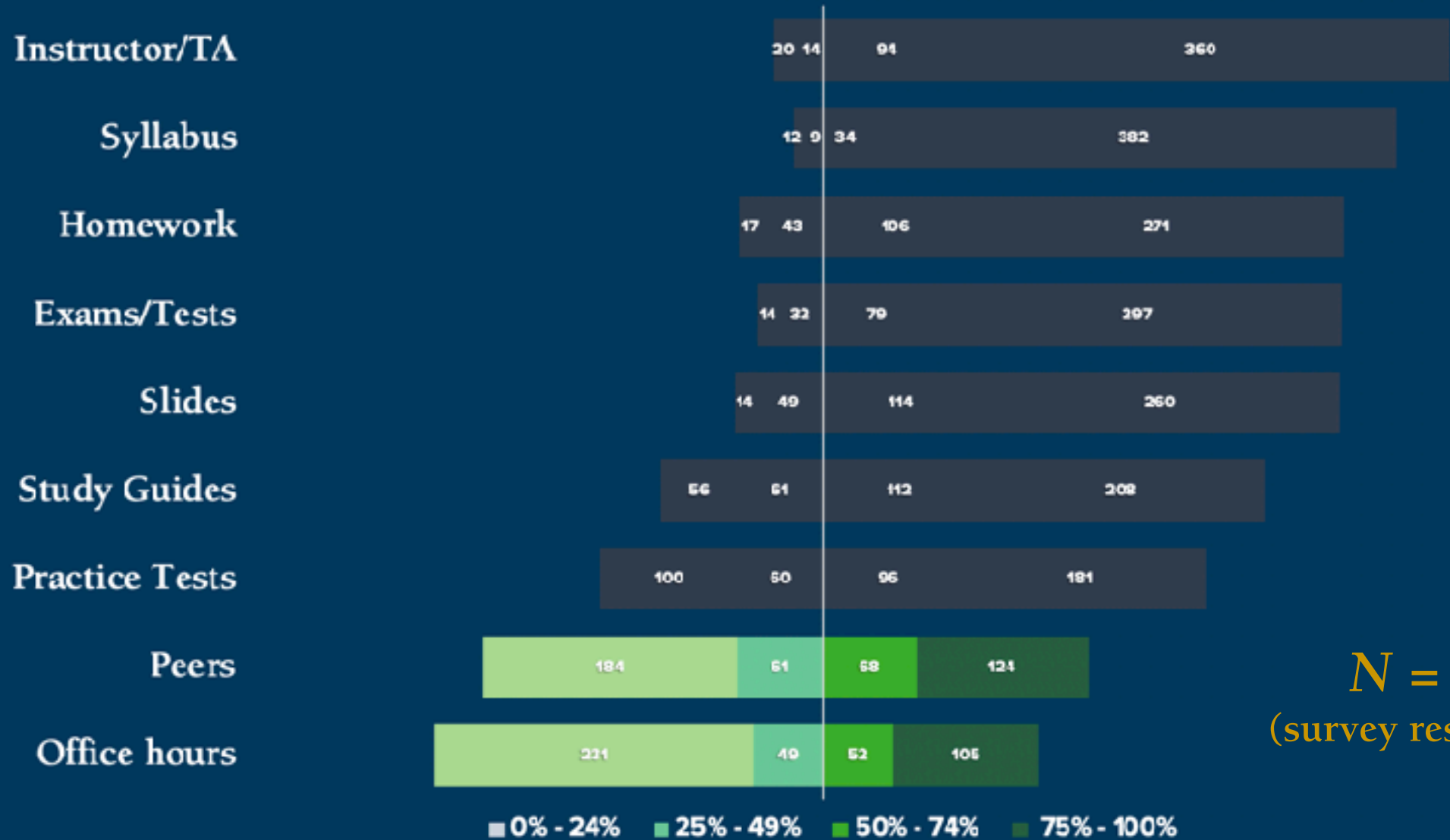
N = 437
(survey respondents)

How do students find out what they are expected to learn?

Four major strategies:

1. **Deduction:** Explicit/direct statements of SLOs (on slides, materials, from professors, etc)

2. **Induction:** Guessing/"figuring it out" (from slides, materials, from professors, etc)

3. **Ask:** Direct asks to professors, TAs, peers

4. **Nothing:** Statements that state/imply participants don't know how to find out/don't care

How do students find out what they are expected to learn?

INDUCTION

"I can usually figure out … what the learning objectives are by taking a test or doing an assignment or something like that…. And I am generally pretty good at figuring out what the professor's trying to emphasize in lecture."

How do students find out what they are expected to learn?

DEDUCTION

"So [what] helps the most is my … class [where], before we start a new chapter, you'll have all the learning goals on a slide…. That sort of tells us what we need to know by the end."

How do they find out what they are expected to learn?

ASK

"Usually I ask a peer first just because that's a lot easier than bugging a professor who's teaching 400 students."

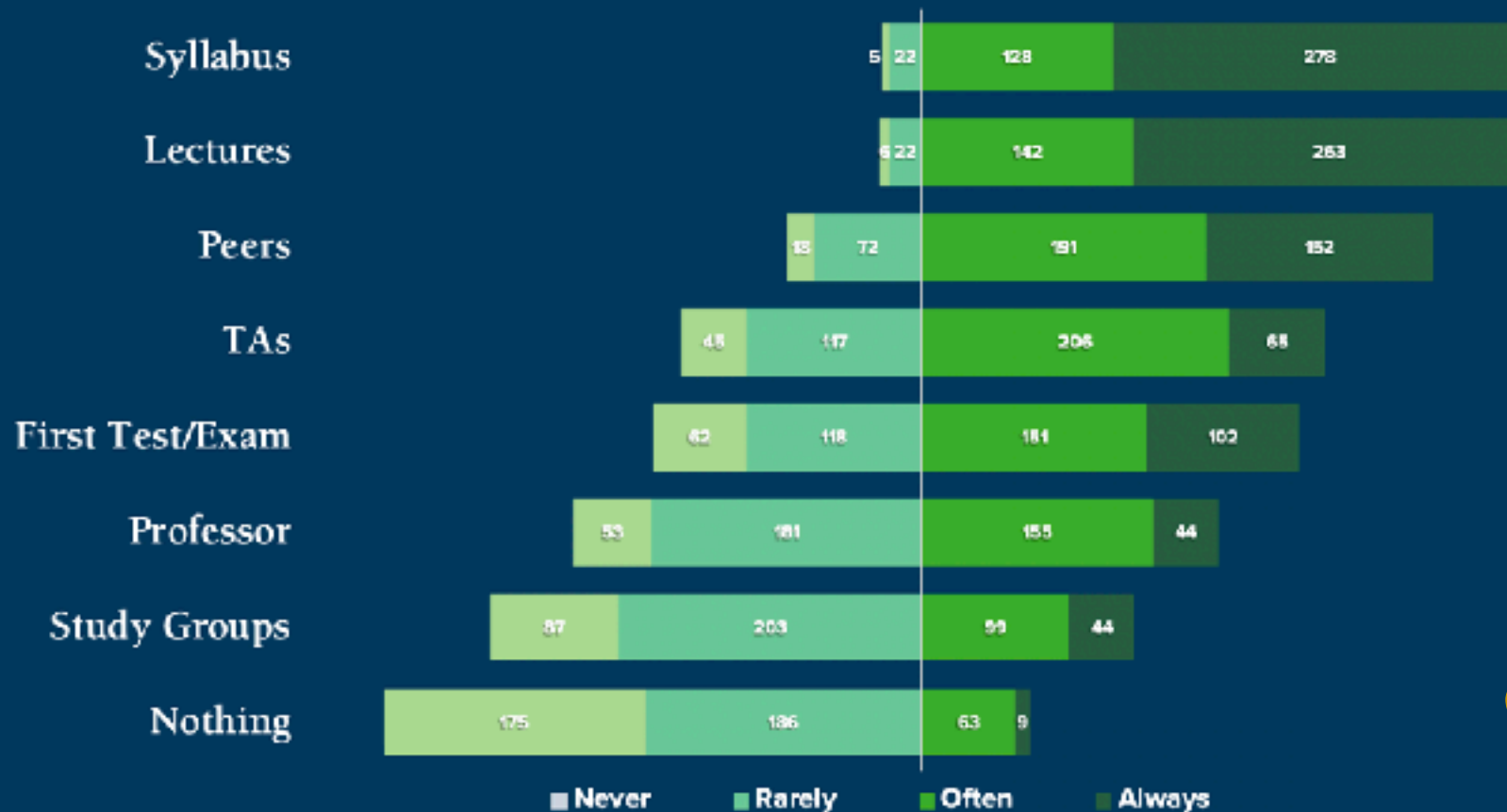# How do they find out what they are expected to learn?

NOTHING

"Learning objectives, I've never really thought of them as a thing… that I was supposed to be thinking about all the time. I think that most of the time the goal is to learn the material."

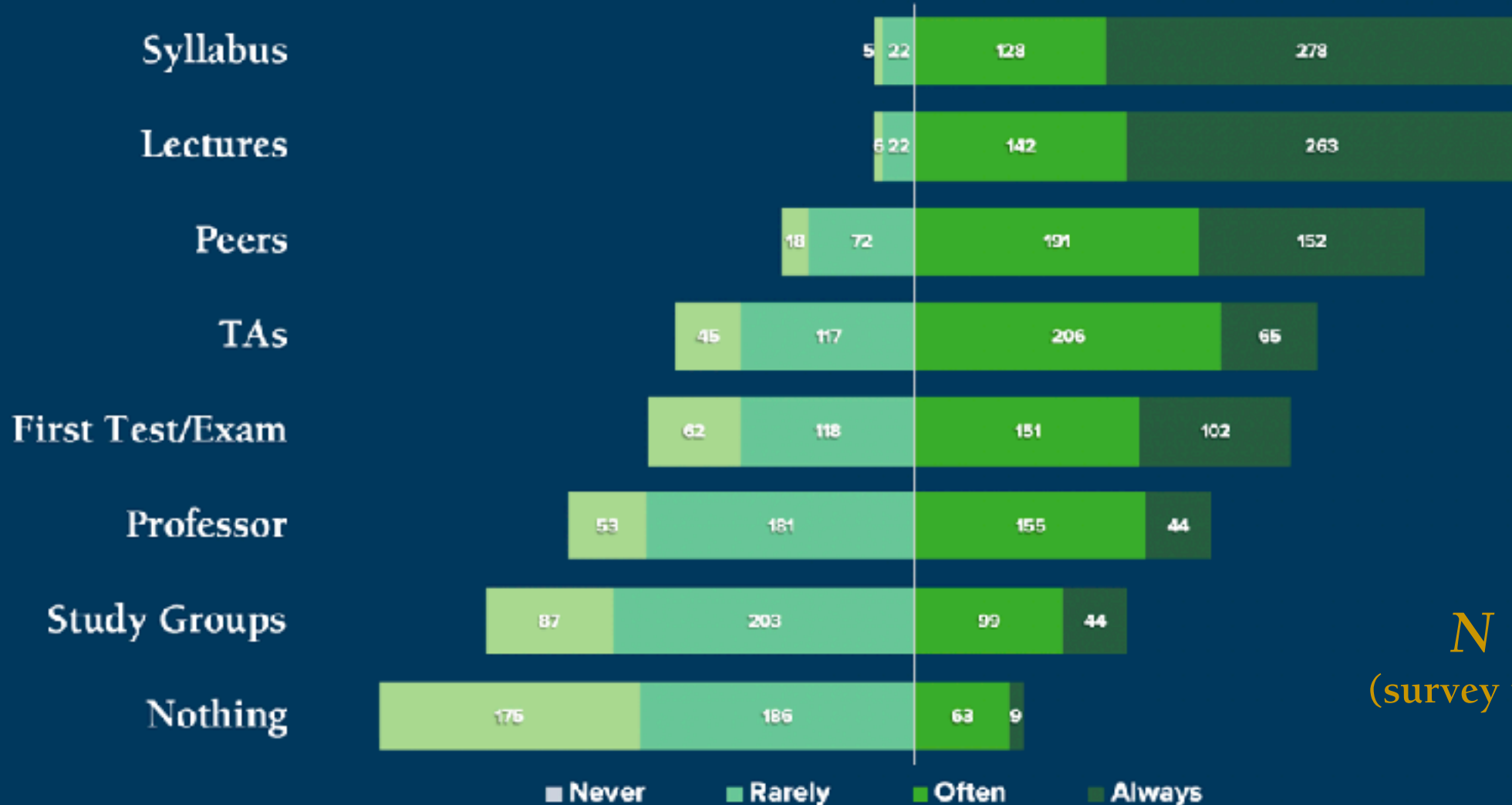# What do students do when learning expectations are unclear?

Frequency of Sources Used when Learning Expectations Are Unclear

Source	Never	Rarely	Often	Always
Syllabus	5	22	128	278
Lectures	6	22	142	263
Peers	18	72	191	152
TAs	48	117	206	65
First Test/Exam	42	118	181	102
Professor	53	181	155	44
Study Groups	87	203	59	44
Nothing	175	186	63	9

■ Never ■ Rarely ■ Often ■ Always

N = 433
(survey respondents)

Frequency of Sources Used when Learning Expectations Are Unclear

Source	Never	Rarely	Often	Always
Syllabus	5	22	128	278
Lectures	6	22	142	263
Peers	18	72	191	152
TAs	45	117	206	65
First Test/Exam	62	118	151	102
Professor	53	181	155	44
Study Groups	87	203	99	44
Nothing	175	186	63	9

N = 433
(survey respondents)

How does knowing or not knowing SLOs influence students?

1. **Positive:** Increased confidence, motivation, positive effects

2. **Negative:** Lack of confidence, motivation, negative effects

3. **Neutral:** Effect mentioned but neither positive nor negative

What happens when SLOs are unclear?

NEGATIVE

"[It] definitely gives me a challenge just to have to figure out what I'm expected to know, and it definitely makes my studying a lot more difficult just because I don't know what I should be studying."

What happens when SLOs are clear?

POSITIVE

"I do better on assignments when I know what the purpose of them are. And it helps me learn better when I know what I'm supposed to be learning."

What happens when SLOs are clear/unclear?

NEUTRAL

"[Knowing or not knowing learning objectives] influences the way I study and influences what exactly I'm trying to learn."

Part 4:

Implications & Applications

Breakout Session 2

Application of Results

Refer to the handout for the questions you'll discuss
(link in the chat)

Implications of Methodology

- Collaborating with students as researchers is paramount.

"Student-led research is an important aspect of learning outcomes assessment because we are able to analyze our data in the eyes of students. It allows students to share their voices with us, but it gives us the opportunity to find ways to analyze data and think of the next steps that will help us make our learning experience better."

Mahalia White

Implications of Methodology

- Collaborating with students as researchers is paramount.
- Mixed methods is a must!

Implications of Methodology:
What influences how students find out SLOs?

1. Learning Culture:

  • Perceptions of professor's/TA's demeanor, approachability, course organization

2. Characteristics of SLOs:

  • Quality of SLOs (e.g., applicability/ transferability)

  • Clarity of SLOs (e.g., transparency / comprehensibility)

  • Alignment

3. (Need for) Repetition:

  • Explicit/direct re-statement of SLOs in class, need for reminder of SLOs

What influences how students find out SLOs?

LEARNING CULTURE

"I think [asking the professor] really depends on the approachability of a professor because some of them I think are really hard to approach, and some of them aren't."

What influences how students find out SLOs?

SLO CHARACTERISTICS

"usually the first day of class they'll kind of go over like, 'this is the course, and this is what you should be able to do.' I think that's clear in the beginning. And then sometimes I think there's definitely been courses where I'm in the middle of the class and I'm like, this is super interesting and I'm learning things, but I don't really know [what the learning objectives are]."

What influences how students find out SLOs?

(NEED FOR) REPETITION

"I do like it when professors will put the learning outcomes in their slides, which most of mine do. But it doesn't help when they don't use them later."

Implications of Our Results

Students tell us:

- They need SLOs to be clearly & explicitly stated by instructors in class
- They need SLOs to be clearly & explicitly stated on syllabi
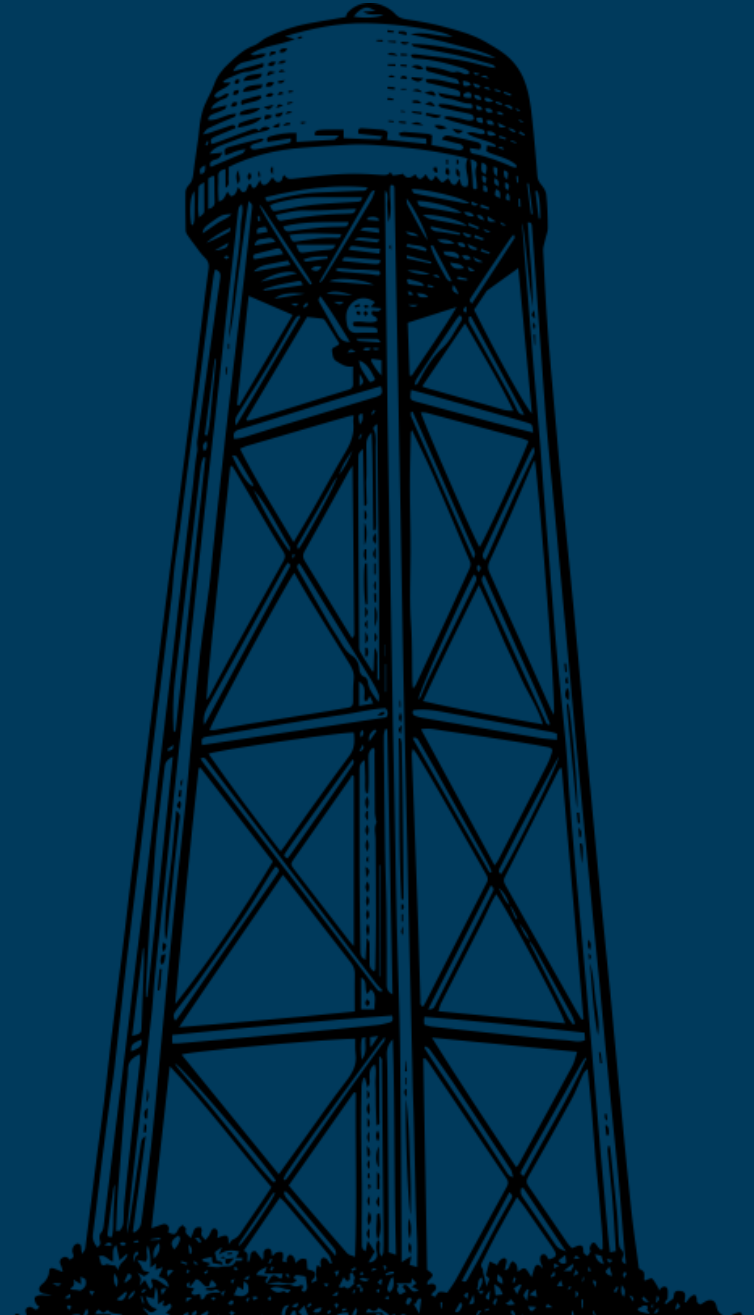- They turn to their peers to find out SLOs when unclear

Final Thoughts

Clarity & transparency matter!

Students' voices matter!

Part 5:

Q & A

Acknowledgements

- This project would not have been possible without our StARs!
- We are also grateful to our colleagues in the Center for Educational Effectiveness for their support and feedback.
- We thank our Assessment Champions at UC Davis.

Academic Assessment Team's Mission

The UC Davis Academic Assessment team provides expert guidance and coaching for faculty-initiated, action-oriented inquiry about assessment of student learning. We foster a culture of curiosity about student learning; advocate for inclusive, equitable, and sustainable assessment practices; and embody kindness through strengths-based engagement.

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Further Research

- How do students define learning outcomes?
- To what extent do SLOs appear on syllabi?
- How to students perceive differences in SLO transparency across different majors and/or courses?
- What to do with data from confidence questions?