SATAL
Students Assessing Teaching and Learning

Presenters information

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Background

- **Active learning practices** are emblematic of high-quality teaching in higher education (Freeman et al., 2014; Maries, Karim, & Singh, 2020; Theobald et al., 2020).

- SATAL implements a **mixed methods approach** (Creswell & Creswell, 2018).

- Smith et al.'s (2013) Classroom Observation Protocol for Undergraduate STEM (COPUS) and Clark and Redmond's (1982) Small Group Instructional Diagnosis (SGID) to collect mid-semester feedback.

- By **triangulating data** from different assessments tools, SATAL supports instructors with actionable feedback as they **reflect on their teaching practices with the involvement of students** to identify students' experiences and facilitate an **equitable learning environmen**t.

Methodology

Smith et al.'s (2013) COPUS

(Classroom Observation Protocol for Undergraduate STEM)

- What is COPUS?

  COPUS documents teaching practices in 2-minute intervals throughout a class session using 12 instructor codes and 13 students' codes categorized into four collapsed codes (Smith et al., 2014; Kranzfelder et al. 2020; Reiner et al. 2020).

- Benefits of COPUS

  - COPUS) is most commonly used to provide an objective account of the amount of traditional lecturing versus active learning strategies occurring in STEM classrooms

  - COPUS results can be offered as an instructor-friendly visual representation documenting the frequency of instructors' use of active learning strategies for different purposes (Kranzfelder et al., 2020; Reisner et al., 2020; Smith et al., 2014).

Clark and Redmond's (1982) SGID

(Small Group Instructional Diagnosis)

- What is SGID?

  It collects group and individual mid-semester student feedback.

  Following the think-pair-share approach, students respond to the following questions:
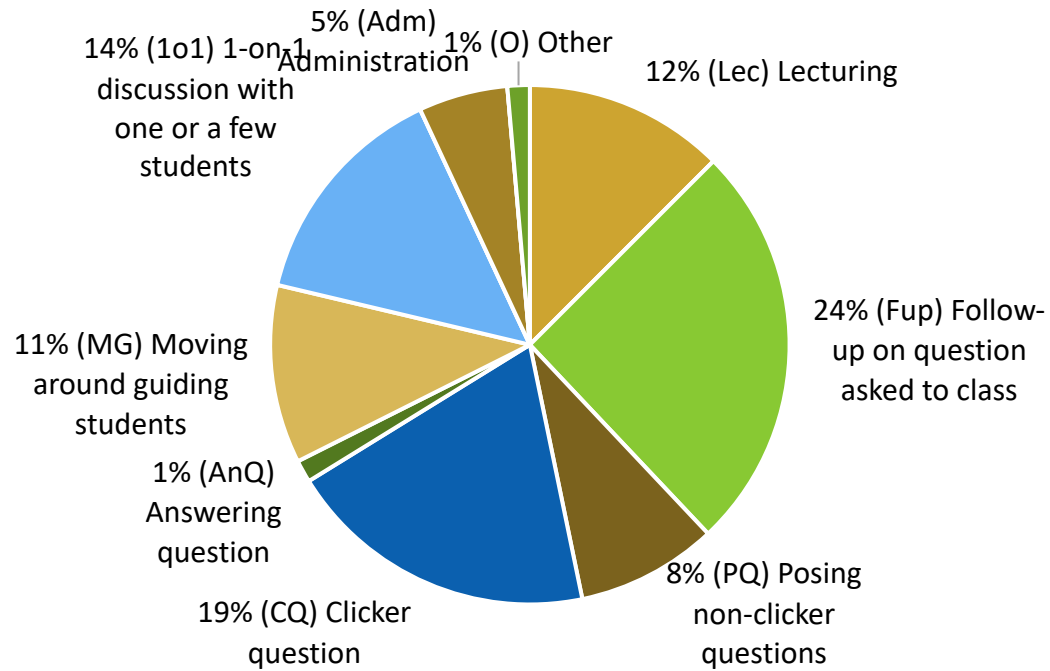
  1. What helps your learning in this course?

  2. What suggestions do you have for the instructor to help your learning?

  3. What actions would you take to improve your learning?
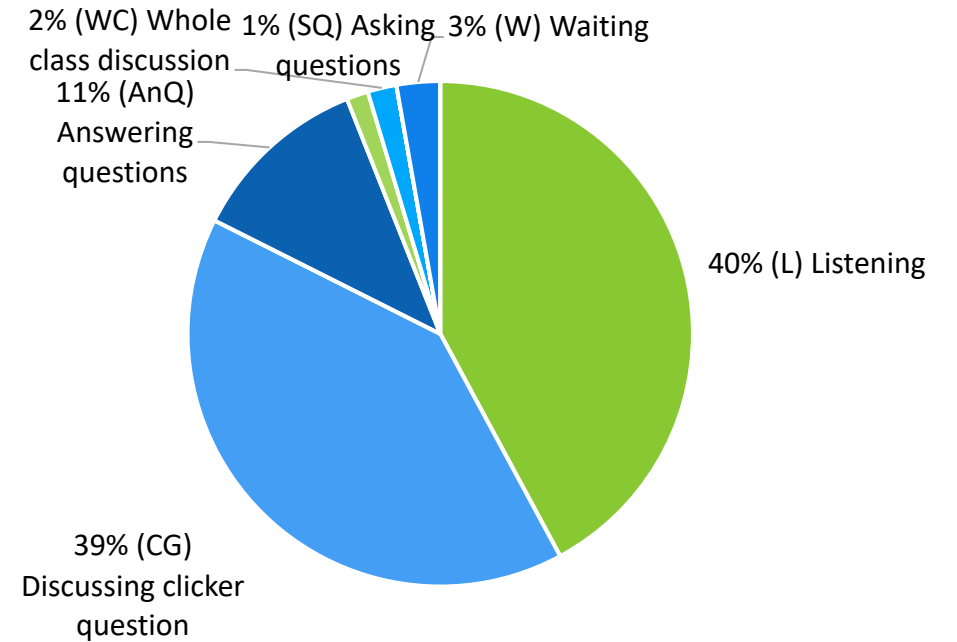
- Benefits of SGID

  - Our report arranges the student feedback into categories from highest to lowest level of agreement based on the questions for reflection.

  - The data can be disaggregated into student demographics

COPUS Results

Instructor is Doing

- 5% (Adm) Administration
- 1% (O) Other
- 12% (Lec) Lecturing
- 14% (1o1) 1-on-1 discussion with one or a few students
- 24% (Fup) Follow-up on question asked to class
- 11% (MG) Moving around guiding students
- 1% (AnQ) Answering question
- 8% (PQ) Posing non-clicker questions
- 19% (CQ) Clicker question

Students are Doing

- 2% (WC) Whole class discussion
- 1% (SQ) Asking questions
- 3% (W) Waiting
- 11% (AnQ) Answering questions
- 40% (L) Listening
- 39% (CG) Discussing clicker question

What helps your learning in this class?	#	%
Group activities (worksheets, discussions) help our learning because we all communicate with each other our different thoughts and perspectives	37	100%
How accommodating the instructor is to his students (I.e extending assignments)	37	100%
How caring the instructor is about students/ is very mindful of his students	36	97%

What changes could the instructor make to improve your learning? The instructor should…	#	%
Add visual examples (like when we were talking about survey methods) showing videos... would help us comprehend those concepts	33	89%
Go over what we read in class so we can see what we know from the readings.	22	59%
Include take aways of the key concepts after the lecture so we can use them study	17	46%

What actions would you take to improve your learning? I should…	#	%
I watch videos on concepts on Youtube and watch videos to get examples	16	43%
I review my notes before and after class	10	27%

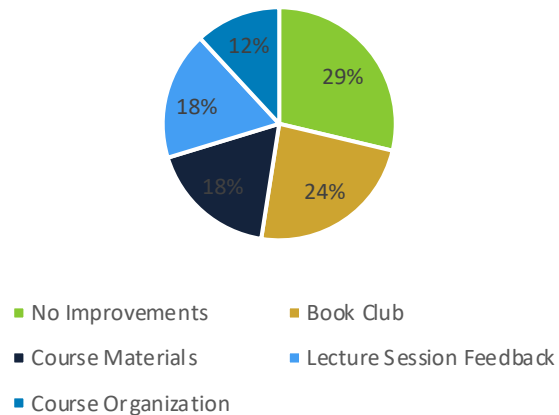# SGID Results

Q2 First Generation Student Responses		
n=17		
What changes could the instructor make to improve your learning? The instructor should…	#	%
No Improvements	5	29%
Book Club	4	24%
Course Materials	3	18%
Lecture Session Feedback	3	18%
Course Organization	2	12%

Q2 Other (Non First-Generation/Prefer Not to Say) Student Responses		
n=9		
What changes could the instructor make to improve your learning? The instructor should…	#	%
No Improvements	3	33%
Lecture Session Feedback	3	33%
Book Club	1	11%
Course Organization	1	11%
Course Materials	1	11%

Q2 First Generation Student Responses n=17

Q2 Non-First Generation Student Responses n=9

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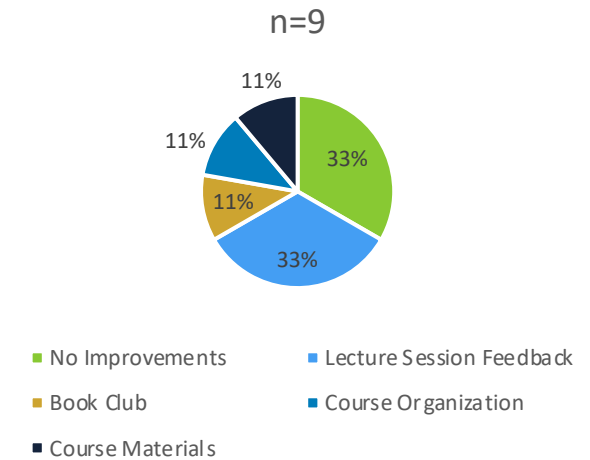
Discussion

COPUS Takeaways

➤ Instructor: Uses a variety of teaching practices (Follow-up, Clicker questions, One-on-one, etc.) However students are still listening 40% of the time.)

> ➤ **Suggestion: Instructor can encourage more student led conversations (Whole-class-discussion) instead of the instructor leading the discussion of answers (with Follow-up)**

➤ Instructor: Spends over 10 mins having students discuss clicker question/work in groups activity while checking in on student groups.

> ➤ **Suggestion: The instructor can focus on 1-2 groups for each question to have one-on-one time instead of trying to talk to all students.**

SGID Takeaways

Student Feedback:

➤ Appreciated real-life examples related to class material

➤ Loved group activities

➤ Students would like the instructor to have more communication on CatCourses

> ➤ **Suggestion: Instructor can post a new module the week of/before class with prepared material so students know what to expect**

Implications for Teaching and Learning

Instructor Code	If…	then…	Student Code
Lecturing (Lec)	your percentage of Lecturing (Lec) is higher than desired	• try Posing a Question (PQ) with a think-pair-share activity.	• Individual Thinking (Ind) • Other Group Work (OG) • Whole Class Discussion (WC) • Answering Question (AnQ) • Student Question (SQ)
		• try adding a Clicker Question (CQ) and implementing a Follow-up (Fup)	• Individual Thinking (Ind) • Group Clicker Question (CG) • Whole Class Discussion (WC) • Answering Question (AnQ) • Student Question (SQ)

Implications for Teaching and Learning

Student Code	If…	then…	Student Code
Listening (L)	the percentage of Listening (L) is higher than desired	• try to Following-Up (Fup) on a Student Presentation (SP).	• Listening (L) in addition to: • Student Presentation (SP) • Whole Class Discussion (WC) • Answering Question (AnQ) • Student Question (SQ)
		• try adding a Clicker Question (CQ) and implementing a Follow-up (Fup)	• Individual Thinking (Ind) • Group Clicker Question (CG) • Whole Class Discussion (WC) • Answering Question (AnQ) • Student Question (SQ)

SATAL support for a more equitable learning environment

1) We bring the student involvement.

2) We have identified that the COPUS paired with the mid-semester feedback

provide a holistic view of the students' experiences and needs.

3) We support instructors with classroom data disaggregation and exploration.

4) We advocate for a culture of inquiry as a promising approach to route away from deficit thinking

and toward equitable assessment through ongoing reflection.

Q&A

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thank you

References

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