

## Small Changes in Transparency and Metacognition Improve Student Persistence and Engagement

**Purpose:** Identify and share techniques for incorporating structure, transparency, and metacognition into your courses.

### Pre-workshop assignment

**Purpose:**

- Get to know your peers
- Start thinking about how this workshop could help you

**Tasks:**

1. Think about student performance in a gateway course in your discipline. Write down what you think are two significant barriers to student success in this course.

Barrier to student success in your course #1	Barrier to student success in your course #2

2. Introduce yourself to your table. In addition to your name, indicate the following:

- Your discipline
- The gateway course in your discipline
- Describe one of the barriers you indicated in question #1

3. After discussion - share your expertise!

- Come to a consensus at your table on one or two important barriers.
- Post to Padlet. Be prepared to explain your post to the room!

*Directions: Scan the QR code to get to Padlet. Once In Padlet, click the yellow plus sign at the bottom, type your response, then publish.*



**Assessment:** Participation

**Part 1 – Structure and Transparency**

This is how we do it.

**Structure**  
Weekly Clear instructions:

- Before-class, during-class, after-class that model study cycle
- Active-learning with peer-instruction in class
- Assessments mirror practice

**Transparent Assignment Design**  
Assignments, Class activities:

- Clarify purpose,
- Clear task lists,
- Clear communication of criteria of success

**Tasks:**

1) How do you currently add structure and transparency to your course? Think on your own and indicate below how your course adds transparency (2 minutes)

Structure in your class	Transparency in your class

2) Take turns presenting your ideas with others at your table. (8 minutes)

3) After your discussion. Think about what you learned. What new transparency techniques would you like to incorporate in your course? *Write these down.* (2 minutes)

New ideas for structure in your class	New ideas for transparency in your class

4. After discussion - share your expertise! (3 minutes)

- Come to a consensus at your table on one or two ideas for adding structure and transparency to your courses.
- Post to Padlet. Be prepared to explain your post to the room!

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**Part 2 – Metacognition**

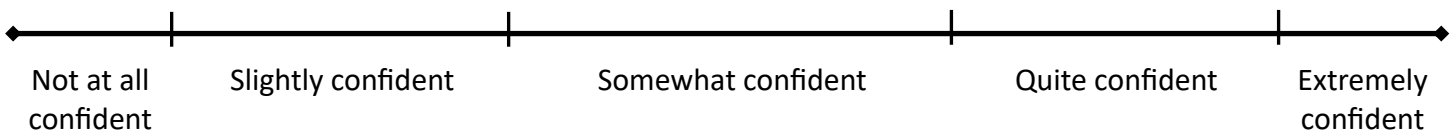
**In our courses, we use metacognitive tasks to help students:**

- **Figure out what they know and what they don't know.**
- **Build confidence in their level of understanding.**
- **Become aware of how they think through problems and learn.**
- **Apply this knowledge to build more effective study skills.**

1) Think on your own and indicate below how your course builds metacognition skills in your students. (2 minutes)

What metacognitive skills do your students need the most?	What techniques do you use in your course to help students develop these skills?

How confident do you feel in incorporating metacognition techniques in your course to improve metacognition skills in your students?



**Part 2 – Metacognition**

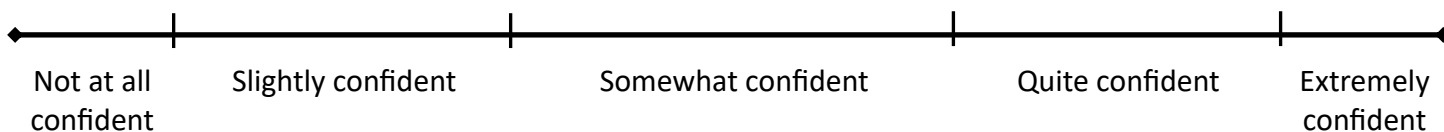
**In our courses we use iClickers, lab workshops, confidence assessments and reflection, along with peer instruction as metacognitive tasks. Refer to slides 13-17 in the slide deck for details.**

2) At your table, take turns discussing the metacognition techniques illustrated in our slides and techniques described by your peers and the skills they build in students. (8 minutes)

3) After your discussion. Think about what you learned. What new metacognition techniques would you like to incorporate in your course? *Write these down below.* (2 minutes)

New metacognition techniques to use in your course.	The skills that the new techniques will help your students develop.

Now that you’ve discussed with your peers, what is your confidence level in building metacognition in your course?



4) After discussion - share your expertise! (3 minutes)

- Come to a consensus at your table on one or two techniques for adding metacognition and the skills they build in students to your courses.
- Post to Padlet. Be prepared to explain your post to the room!

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