

## Setting the stage for the class

**Educator:** Jennifer Schwartz Poehlmann, Senior Lecturer

**Context:** Before class survey followed by in-class discussion; Introduction to Chemistry

**Keywords:** metacognition, connecting learning

**Student Activity Time:** 10 minutes before class; 10 minutes during first two classes

*Students self-assessed their previous study habits, chemistry background, and resilience or ability to bounce back from failure before class.*

### Introducing the Reflection Activity

In an introductory chemistry course, first-year students thought about their goals for the course and reflected back on their previous experience in school. The purpose of these reflection activities was to introduce students to the process of reflection within their own learning. Reflection was built into the rest of the course through post exam discussions and specific writing assignments through which TA's could provide direct feedback so that students were continually supported in regularly assessing their learning.

On the first day of the course, the educator engaged students in a series of clicker questions related to their goals for the class—what do they hope to get out of the course? What do they think they can do on their own to be successful in the course? What can we do best in class together? The purpose of this reflective discussion with clicker questions was to encourage students to think about their goals for the course; their own contributions to their learning; and the role of the educator in their learning.

Then after enrollment had stabilized for the course, the educator invited students to assess their study habits from high school, chemistry background, and resilience or ability to bounce back from failure. In this survey, the educator purposefully asked about skills that are known to be helpful or hurtful for their success in the class (e.g., do you review your notes after class, do you study well in a group).

After students have completed the survey, the educator shared the results with the students. In this discussion, she tried to impress upon them the importance of metacognition versus simply learning content. This debrief was an opportunity for the educator to share with students highlights from the survey responses as tips and tricks for success in the course and in college generally.

In terms of outcomes, these two reflection activities coupled together in the first few class sessions have the potential to set the stage for the way that the course is structured and how students should prepare for their participation in the course. Students may come to lecture better prepared with some background information, prepared to respond to clicker questions, and ready to work on problems. In small sections the students may be prepared to work in small groups in an active learning

approach. Additionally, from these reflection activities, students may generally be more self-aware and may be able to better plan for success in the course.

### Recreating the Reflection Activity

	Description
1	Engage students on the first day with clicker questions related to their goals for the course, their role in the course, and the role of the educator in the course.
2	Design a beginning of the course survey on study habits and background concepts.
3	Invite students to participate in the survey.
4	Present survey responses and debrief the results with the students in next class.
5	Together, generate study strategies for success based on previous data and discussions.

### In the words of the Educator: Tips and Inspiration

*Set the stage for the structure of the course.* The structure of this course relies heavily on student participation and group work. Because this is generally different from what students have experienced in the past, I believe it is critical to the success of the course for students to understand why we are using this approach and to help them continually assess their own learning throughout the process.

*What was the inspiration for the reflection activity?* I remember being so bored during any lecture course when I was an undergraduate – if there was no opportunity to engage, I would just zone out. Education literature also clearly demonstrates that straight lecture formats do not promote student learning and retention of material. So, when designing my teaching, I wanted to create a course that uses class time to better engage students so that they are active participants in their own learning.