

COPUS Training Guide

1. [10 mins.] Introductions and brief rationale for exercise and overall goals.
2. [15 mins.] Hand out paper copies of protocol and code explanations. Allow participants to read them over. Project the code explanations. Discuss the codes as a group and answer any questions.
3. [5–10 mins.] Show two minutes of a video that is straightforward to code (mostly lecture, administrative announcements). Observers individually mark their paper copy of the protocol. Stop after two minutes and have a group discussion about the codes they selected. Which codes chosen for students? For instructor? How many for each?
4. [8 mins.] Now group the observers in pairs and have the two observers sit near each other. Play a video for ~8 minutes and have observers record what is going on in 2-minute segments on the paper copy of the protocol. In order to keep all observers in sync, use either a shared two-minute sand timer or a stopwatch counting up (this feature is often found on cell phones).
5. [10 mins.] Have the observer pairs first compare notes with each other for the 8 minute segment and then have a discussion with the larger group. For the group discussion, observers take turns volunteering what they coded for the students and the instructors every two minutes for the 8-minute clip. Discuss any codes that were unclear. For example, observers often want to clarify when to mark the student code “OG Other group activity” and how that differs from having students discuss a clicker question or work on a worksheet. It is also recommended to discuss the instructor code “FUp Follow up” and the importance of marking “PQ Posing non-clicker question to students” if the instructor follows up by posing questions to students. Observers may also talk about the relationship between some student and instructor codes. For example, if observers mark “CG students discussing a clicker question,” they will also likely mark the instructor code “CQ Asking a clicker question.”
6. [15 mins.] Have observer pairs code two minutes of a video segment that shows students and instructors showing multiple behaviors such as asking and answering questions, small group activities, and/or discussing clicker questions. After two-minutes have the pairs compare codes and discuss the results with the larger group. Then have observers code the next 6 minutes (8 minutes total of this segment of the class). Again have pairs compare answers and discuss the answers as a whole group volunteering what they coded for the students and the instructors every two minutes for the 8-minute clip.
7. [10 mins.] Organize pairs and select classes to observe. Plan a way to collect data from observers (collect paper copies, fill in the information on an on line form). If possible, meet with observers after they have collected data to share aggregate results and talk through any codes that were causing difficulties.

8. If you have two observers in a classroom and would like to calculate inter-rater reliability (IRR), for all 25 codes add up all the total number of times: 1) both observers put a check in the same box, 2) neither observer put a check in the same box, 3) observer 1 put a check in a box when observer 2 did not, and 4) observer 2 put a check in a box when observer 1 did not. With this information, you can use a statistical package such as SPSS (IBM Inc.) to calculate the Kappa values.

Video resources that may be helpful for COPUS training:

Description of video	URL
Demonstration, clicker questions, and lecture	http://harvardmagazine.com/2012/02/interactive-teaching
Group activities and lecture	http://podcasting.gcsu.edu/4DCGI/Podcasting/UGA/Episodes/12746/614158822.mov
Clicker questions and lecture	http://podcasting.gcsu.edu/4DCGI/Podcasting/UGA/Episodes/22253/27757327.mov
Clicker, real-time writing, and lecture	http://ocw.mit.edu/courses/chemistry/5-111-principles-of-chemical-science-fall-2008/video-lectures/lecture-19/
Real-time writing, asking/answering questions, lecture	http://ocw.mit.edu/courses/biology/7-012-introduction-to-biology-fall-2004/video-lectures/lecture-6-genetics-1/