

In: Hauk, S., Speer, N. M., Kung, D., Tasy, J.-J., & Hsu, E. (Eds.) (2013) *Video cases for college mathematics instructor professional development*. Retrieved from www.collegemathvideocases.org/home

Using the Facilitator's Guide

When printed 2-sided, book style, the left page (even numbered) has facilitator notes.

The right page (odd numbered) is what participants see in their guide.

<p>6 <i>Facilitator's Guide</i></p> <p>Activity 1: Verbal Cues</p> <p>Listen—Eric's Class (2 minutes) Play the video—the screen will remain black throughout the clip, save for the subtitles at the bottom. Pause the video when asked to. Tell participants that transcripts also appear at the end of the handout.</p> <p>Sample responses to discussion questions—Eric:</p> <ol style="list-style-type: none">1. "Is this everybody's graph?" "If I asked any of you to explain this..." "Why don't you start telling me the story..." (implying that someone else might continue — requiring everyone to pay attention). Toward the end of the clip, Eric reiterates that the goal is to convince each other.2. All four.3. Eric wanted to see if there was agreement, to reinforce the idea that they needed to discuss issues until everyone agreed. Alternatively, he could have asked "How are you doing?" of the whole group, not putting any one student on the spot.4. Eric might want them to practice justifying their reasoning by convincing each other. Doing so avoids the "teacher as final authority" idea that keeps students from deeper mathematical thinking. <p>Listen—Kristen's Class (2 minutes) Start the clip again, pausing when instructed. Again, transcript appears at the end of the handout.</p> <p>Sample responses to discussion questions—Kristen:</p> <ol style="list-style-type: none">1. She refers to the tools they have, without telling them which one to use. She repeatedly draws their attention to specific parts of the task, with questions, e.g., "How would you get rid of...". To get them working, she focuses on procedures that sound like they might be familiar - find a place where everyone can access and go from there.2. Two3. Participants often remark that Kristen should tell students to use a particular rule. Some might suggest Kristen say "There's an easier way" and walk away. While this might generate student discussion, it is just as likely to distract students from engagement in the task and refocus their energy on what is "easier." Consider asking participants to think about what the consequences will be for student engagement and understanding if attention is focused on a search for a "better" or "easier" way (as opposed to having students pursue what they already understand in a mathematically correct fashion). Participants might also suggest she could ask if anyone else (e.g., nearby students) has a different method.	<p><i>Facilitator's Guide</i> 7</p> <p>Activity 1: Verbal Cues</p> <p>Introduction:</p> <p>We are going to listen to a discussion from each of the two calculus classes described above. Listening to what each instructor is saying will allow us to focus attention on the verbal cues each instructor uses to engage their students.</p> <p>Listen — Eric's Class:</p> <p>The goal is to pay particular attention to how Eric interacts with his students. You need not focus too heavily on the context of the problem, just think about how Eric addresses the students and how what he says might influence the direction of the discussion or nature of the group's work.</p> <p>Discuss — Eric:</p> <ol style="list-style-type: none">1. What are some things that Eric said to facilitate the group's discussion and work on the task?2. How many students contributed to the discussion?3. Erik asks the group if the graph shown, "... is everyone's graph?" Why would he ask this question? How else could Eric have approached the group?4. In line 8, Eric discovers that one student does not agree with her other group members. Instead of telling them who was right, in line 18 he instructs the members to "convince each other." Why would Eric want the group members to convince each other instead of convincing them himself? <p>Listen — Kristen's Class:</p> <p>Listen to the sample taken from Kristen's calculus course and just like before, pay particular attention to how Kristen interacts with her students. Focus on how Kristen's intervention influences the group's discussion and progress.</p> <p>Discuss — Kristen:</p> <ol style="list-style-type: none">1. What are some things that Kristen said to facilitate the group's discussion and work on the task?2. How many students contributed to the discussion?3. When asked how to take the derivative of a function, one student wants to use the quotient rule. Kristen says, "...it's a lot of work, but you can use it." If Kristen feels that there is a more efficient way of solving the problem, how might she have elicited this method from the other members of the group?
--	---

On the even-numbered pages, notes for facilitators include highlights in grey boxes about what to do as facilitator, sample responses to some of the discussion prompts, and related information. The examples foreshadow the types of ideas participants may bring up in discussion. They are *not* an "answer key" and are not meant as targets or topics to be elicited from participants. Also, the examples are by no means exhaustive.

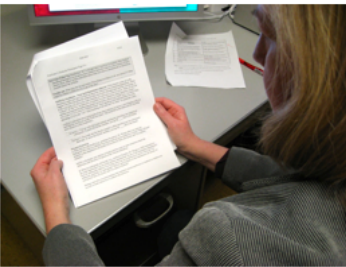
Suggested preparation:

1. Read the one-page Overview (first page in the *Facilitator Guide*).
2. Read the Participant Guide (the odd numbered pages in the *Facilitator Guide*).
3. Read the facilitation notes (the even numbered pages in the *Facilitator Guide*).
4. Read and follow the directions on the following pages, the *Visual Guide to Using Video Case Materials*.
5. Recommended reading: The essay on *Using Cases*.

Visual Guide to Using Video Case Material



1. Read through the case guides and choose a case.
 - a. Download Facilitator Guide PDF
 - b. Download Participant Guide PDF



2. Print and read the Facilitator's Guide for the case (see the "Download Facilitator Guide PDF" link on the case webpage).



3. Find a room that will hold your group and that has the needed video, audio, and internet capabilities (e.g., projector, speakers, at least 3Mbs internet for streaming video).



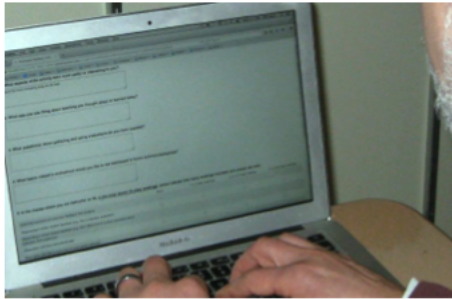
4. Print Participant materials for your anticipated number of participants (get PDF at the "Download Participant Guide" link on the case webpage)



5. Before the group meets, check that the video and audio work in the room (e.g., webpage loads and video plays with audible sound).



6. Refer to the Facilitator's Guide while you run the case.



7. After the case, have participants complete the online survey.
(Survey link available on case webpage).



Done!