



Advanced CER Course Class 2: Classroom Discussion

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Agenda

- Overview
- Activity – Discuss Student Writing
- Discussion – Lessons Learned
- Activity – Analyze erosion and deposition transcripts
- Activity – Analyze student writing from erosion and deposition lesson
- Discussion Video – Pendulum lesson
- Activity – Design next lesson
- Debrief and questions



Activity: Discuss Learning Task

- Work in groups from the previous workshop
- Share samples of student writing
- Discuss the writing and the lesson:
 - What went well during the lesson?
 - What challenges arose?
 - What were the strengths and weaknesses of your students' writing?
 - What did you learn that you hope to address or apply in your next CER lesson?
 - Any suggestions of other important characteristics to consider for designing questions?



Discussion: Lessons Learned and Questions

- What did you learn that you hope to address or apply in your next CER lesson?
 - Challenges? Successes?
- What did you learn from your discussion with your colleagues?
- What suggestions do you have for revising our list of characteristics for good CER questions?



Classroom Talk

- Science discussions classrooms often consist of a discourse pattern (IRE) where the teacher initiates a question, the student responds, and then the teacher evaluates (Lemke, 1990).
- Example:
 - Teacher: What does reflection mean? Jane.
 - Jane: When light bounces.
 - Teacher: Good. Light bouncing. What is an example of reflection we saw in our experiment? Sam.
 - Sam: When the light bounced off the mirror.
 - Teacher: Ok. When the light bounced off the mirror. Did the light travel in a straight line or did it bend? Carlos.
 - Carlos: It was straight.
 - Teacher: Good. The light traveled in a straight line.



Activity: Analyze Classroom Talk

- Read the two examples of classroom talk
- Analyze the two transcripts in terms of IRE versus student-to-student interactions.
- Analyze the transcripts in terms of supporting CER.
- What are the strengths and weaknesses of the two discussions?



Activity: Analyze Student Writing



- Read the two examples of student writing
 - The 5th graders wrote their CER in groups. These are from two different groups.
- Analyze the student writing in terms of claim, evidence and reasoning.
 - What are the strengths?
 - What are the weaknesses?
- Considering the student work and the transcripts, what suggestions would you have about teaching this lesson next time?

Analyze 5th and 6th Grade Discussion



- Video is from a book looking at supporting student discussion (not CER).
 - 5th and 6th grade classroom in Washington DC
- Consider the discussion in terms of IRE versus student-to-student interactions. What are the strengths? What are the weaknesses?
- If this classroom was using CER, how might the discussion look different? If you were the teacher, would you use any different strategies?

Activity: Integrate Teaching Strategy



- Work either individually or in a group
- Design a CER lesson before the next workshop taking into consideration supporting student discussion.
- On a large post-it, record the following:
 1. Question you will ask students
 2. Example CER - illustrate components (short)
 3. Any strategies, graphic organizers, etc. you will use to support students in CER.

Logistics and Wrap-up



- Before March 16 Workshop
 - Try another CER Learning Task with your students that supports discussion.
 - Audio or videotape the lesson.
 - Select an approximately 3 minute section to transcribe (1 page of transcript).
 - Bring in 5 copies next time to share with your colleagues to discuss the sample discussion.

Contact information



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