

## NOTETAKER CHECKLIST FORM

(Complete one for each talk.)

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Speaker's Name: Miriam Gamoran Sherin and Elizabeth A. van Es

Talk Title: Designing Video Clubs for Teacher Learning

Date: 2 / 11 / 16 Time: 4 : 15 am **pm** (circle one)

List 6-12 key words for the talk: video clubs, teacher learning, student mathematical thinking, clarity/depth of student thinking

Please summarize the lecture in 5 or fewer sentences: \_\_\_\_\_

The speakers provided concrete methods to improve video club productivity by explaining how to select and characterize video clips. The speakers also provided a framework for facilitating video based discussion. Specific facilitator moves were introduced.

## CHECK LIST

(This is **NOT** optional, we will **not pay** for **incomplete** forms)

- Introduce yourself to the speaker prior to the talk. Tell them that you will be the note taker, and that you will need to make copies of their notes and materials, if any.
- Obtain ALL presentation materials from speaker. This can be done before the talk is to begin or after the talk; please make arrangements with the speaker as to when you can do this. You may scan and send materials as a .pdf to yourself using the scanner on the 3<sup>rd</sup> floor.
  - **Computer Presentations:** Obtain a copy of their presentation
  - **Overhead:** Obtain a copy or use the originals and scan them
  - **Blackboard:** Take blackboard notes in black or blue **PEN**. We will **NOT** accept notes in pencil or in colored ink other than black or blue.
  - **Handouts:** Obtain copies of and scan all handouts
- For each talk, all materials must be saved in a single .pdf and named according to the naming convention on the "Materials Received" check list. To do this, compile all materials for a specific talk into one stack with this completed sheet on top and insert face up into the tray on the top of the scanner. Proceed to scan and email the file to yourself. Do this for the materials from each talk.
- When you have emailed all files to yourself, please save and re-name each file according to the naming convention listed below the talk title on the "Materials Received" check list.  
(YYYY.MM.DD.TIME.SpeakerLastName)
- Email the re-named files to [notes@msri.org](mailto:notes@msri.org) with the workshop name and your name in the subject line.

## Designing Video Clubs for Teacher Learning

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## Video Clubs



- Groups of teachers watch and discuss video excerpts from their classrooms
- Can video clubs help teachers to develop the ability to notice and make sense of classroom interactions?

## Mathematics Teacher Noticing

- Noticing is a key component of teaching expertise.
- Teacher noticing involves identifying and interpreting significant classroom interactions.
- Video clubs have the potential to promote changes in teacher noticing in ways that influence teacher practice.

## Designing Video Clubs

- What kinds of video are useful for teachers to discuss?
- How should we facilitate discussion of videos with teachers?
- How might we help teachers collect video from their own classrooms?

### What makes a video clip “interesting?”

- View two short (3 minutes) clips from same classroom
- Would these clips be productive to use in a video club?
- What features of video clips are important to consider?
- Consider a video club with the goal of learning to notice *student mathematical thinking*.

### Situating the Video

Umberto's mother expects an increase of 5% in her current annual salary of \$36,000. What would her new annual salary be?

- A. \$36,005
- B. \$36,180
- C. \$37,800
- D. \$41,000
- E. \$54,000

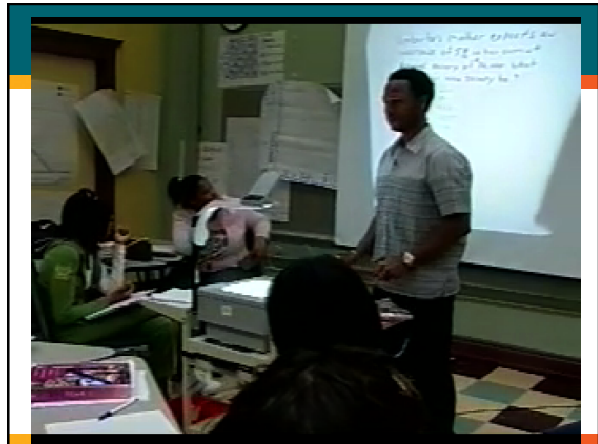
From: (1997). *Getting into the ACT: Official Guide to the ACT assessment*. Harvest Books.

### Situating the Video

Umberto's mother expects an increase of 5% in her current annual salary of \$36,000. What would her new annual salary be?

- A. \$36,005     Add \$5 rather than 5%
- B. \$36,180     Add .5% rather than 5%
- C. \$37,800     Correct answer!
- D. \$41,000     Add \$5000 rather than 5%
- E. \$54,000     Add 50% rather than 5%

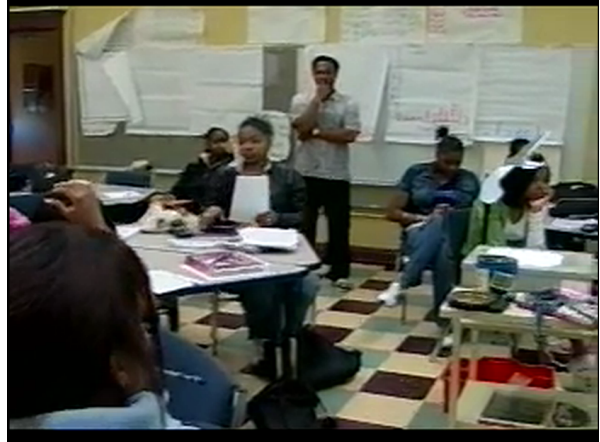
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## Selecting Video Clips

- Would this video be productive to use in a video club?
- What features of the clip might afford a productive discussion?
- What features of the clip might limit a productive discussion?

Consider a video club with the goal of learning to notice *student mathematical thinking*.



## Selecting Video Clips

- Would this video be productive to use in a video club?
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Consider a video club with the goal of learning to notice *student mathematical thinking*.

## Selecting Video Clips

Three dimensions of classroom video clips of student thinking about mathematics:

**WINDOWS into Student Thinking** Is there evidence of student thinking in the video clip?

**DEPTH of Student Thinking** Are students exploring substantive mathematical ideas?

**CLARITY of Student Thinking** How easy is it to understand the student thinking shown in the video?

### Characterizing Video Clips

	Low	Medium	High
<b>WINDOWS into Student Thinking</b>	Little evidence of student thinking from any source	One or more sources of information exist, but little detail provided	Detailed information from one or more sources
<b>DEPTH of Student Thinking</b>	Task is routine for student; calls for memorization or recall on part of student	Some sense-making applied to routine task	Student engages in math sense-making, works on task at conceptual level
<b>CLARITY of Student Thinking</b>	Student thinking not transparent	Much of student thinking transparent, though some ideas may be unclear	Student thinking transparent; viewer sense-making not called for or single interpretation obvious

### Characterizing Video Clips

	Low	Medium	High
<b>WINDOWS into Student Thinking</b>	Little evidence of student thinking from any source	One or more sources of information exist but little detail provided	Detailed information from <b>HIGH</b> more sources
<b>DEPTH of Student Thinking</b>	Task is routine for student; calls for memorization or recall on part of student	Some sense-making applied to routine task	Student engages in math sense-making, works on task at <b>HIGH</b> conceptual level
<b>CLARITY of Student Thinking</b>	Student thinking not transparent	Much of student thinking transparent, though some ideas may be unclear	Student thinking transparent; viewer sense-making not called for or single interpretation obvious

### Research Design

**Mapleton Video Club**

- 7 elementary school teachers
- Met 1-2 times per month
- Viewed total of 26 video clips

**Analysis Part 1**

- Video clips coded along 3 dimensions

	Low	Medium	High
WINDOWS	10	3	13
DEPTH	8	4	14
CLARITY	14	0	12

**Analysis Part 2**

- Rate discussions in video club as more or less productive along specified criteria:
  - Sustained focus on student thinking
  - Substantive mathematical focus
  - Joint sense-making among participants

**Analysis Part 3**

- Examine relationship between coding of video clips and coding of corresponding video club discussions

### High Depth...

Depth must be sustained for productive discussion to take place

- Short bursts of students talking at high depth level not always pursued by teachers.
- This is particularly important in initial meetings.

Student: Five percent ain't \$5.

Student 1: Her salary already is \$36,000 and cause she trying to increase it she want more and \$36,005 that's just like 5 more dollars and

Student 2: Five percent ain't \$5. You trying to trick us.

## Low Depth...

Under the right conditions, *Low Depth* can lead to productive discussions

- This may involve teachers going more in depth into the mathematics than students had done in the video.

Player 1:

5  
●●●●●

2  
●●

Player 2:

3  
●●●

6  
●●●●●●

*Video Club Excerpt*

Wanda: [I noticed] the way he was counting on the card in the later one...He was counting the groups....I think it was three times six.

Daniel: So what was he doing?

Frances: He was counting one, two, three, four, five, six. And then he was keeping track, so he knew he counted six one time, six the second time, six the third time.

Daniel: Well, then he knows what the meaning of multiplication is.

Wanda: Which is...exactly. I mean, that's the base.

## Clarity...

Both high and low clarity clips can lead to productive discussions

- "What?" clips: What is the student saying?
- "Wow!" clips: That's such an interesting method!

## Characterizing Video Clips

	Low	Medium	High
<b>WINDOWS into Student Thinking</b>	Little evidence of student thinking from any source	One or more sources of information exist but little detail provided	Detailed information from <b>HIGH</b> more sources
<b>DEPTH of Student Thinking</b>	Task is routine for student; calls for memorization or recall on part of student	Some sense-making applied to routine task	Student engages in math sense-making, works on task at conceptual level
<b>CLARITY of Student Thinking</b>	Student thinking no <b>LOW</b> parent	Much of student thinking transparent though some ideas may be unclear	Student thinking transparent; viewer sense-making not called for or single interpretation obvious

## Designing Video Clubs

- What kinds of video are useful for teachers to discuss?
- How should we facilitate discussion of videos with teachers?
- How might we help teachers collect video from their own classrooms?

## Facilitating Video Clubs

Returning to Algebra video:

- Select 2-3 issues that you think would be productive to explore in a video club.
- What do you need to consider to engage participants in a productive discussion?
- What kinds of questions might you want to ask participants?

Consider a video club with the goal of learning to notice *student mathematical thinking*.

## Research Design

Examine facilitation across two video clubs

*Emergent Video Club*

- Focused on learning to notice student thinking in participants' own classrooms

Highly Specified Video Club

- Published video club curriculum intended to develop knowledge of students mathematical thinking

Analysis

- Identify facilitation moves
- Compare facilitation moves across more and less productive discussions
- Compare facilitation moves across video club contexts
- Identified 14 key facilitation moves

## Framework for Facilitating Video-Based Discussion

Orienting to Video Analysis	Sustaining an Inquiry Stance	Maintaining a Focus on Video and Math	Supporting Group Collaboration
Launching	Highlighting	Redirecting	Standing Back
Contextualizing	Lifting Up	Pointing to Evidence	Distributing Participation
	Pressing	Connecting Ideas	Validating Participant Ideas
	Offering an Explanation		
	Countering		
	Clarifying		

## Facilitation Moves

- Challenge 1: Discussion off topic and outside of video.
- Facilitator Move: *Redirect* and *Highlight*
  - Turning attention back to video  
"Can we come back to the video here?"
  - Directing attention to noteworthy student ideas  
"What do you think about Ebony's idea?"

## Facilitation Moves

- Challenge 2: Participants talk in generalities.
- Facilitator Move: *Point to Evidence* and *Press*
  - Focus attention to specific evidence or interactions  
"We saw Alicia estimating earlier. Is that the same thing she's doing here?"
  - Prompt for further explanation  
"Can you say more about what's different in Ebony's approach?"

## Facilitation Moves

- Challenge 3: Participants not sure how to analyze what they see.
- Facilitator Move: *Offer an Explanation*
  - Facilitator provides a substantive explanation for interactions in the video  
"I actually think Ebony understands a lot about how to calculate percents."

## Designing Video Clubs

- What kinds of video are useful for teachers to discuss?
- How should we facilitate discussion of videos with teachers?
- **How might we help teachers collect video from their own classrooms?**