REPRESENTATIONS OF PRACTICE: VIDEO COLLECTIONS AND THEIR USE IN TEACHER EDUCATION

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March 2, 2014
AACTE Annual Meeting
Video as a resource, ca. 1990 → present

- Video records of teaching widely available
  - Records of teachers’ or teacher interns’ own teaching
  - Records of other teachers’ teaching
  - Commercially produced with commentary → “home” video; now emerging: collections (e.g., Annenberg, Teaching Channel, MET-x,) and libraries (e.g., Brandon Center Digital Archive)

- No professional system for searching collections, no common standard for quality, indexing

- Make instructional practice available for study and use

The technology has advanced more rapidly than the profession

- Video is like a “manipulative” (e.g., like base ten blocks): it is not magic
- Underdeveloped instructional practice for using video
- Confounding of video types (e.g., teachers’ own videos and videos from public collections)
- No professional system for searching collections, no common standard for quality, indexing

Pedagogy of using video

- Weakly developed: most common uses seem to be to:
  - Exemplify “best practice” according to some perspective
  - View and discuss (e.g., what did you notice?)
  - Analyze with some frame (e.g., participation structures, find examples of teacher moves related to participation, what did student(s) seem to understand)

- Large faith in the basic value of “seeing” and discussing teaching

Session overview

- Pedagogy of using video
- Introduction to the Teaching and Learning Exploratory
- Current and future video collections
- Feedback for future collections
- Q & A
Video use to support interns’ learning of teaching practices

PEDAGOGY OF USING VIDEO
Video use

- Exemplify “best practice”
- View and discuss
- Analyze through some frame
Potential learning goals for video use

- Exemplify “best practice”
  - Clearly defining a particular practice of teaching

- View and discuss

- Analyze through some frame
Using video to...

- **Visualize a practice**: Understand, recognize/name and breaking down a practice
- **Prepare interns to replicate a practice** (e.g. explain particular core content)
- **Engage interns in solving pedagogical problems**: Think about what to do next or analyze a student’s thinking
- **Build interns’ flexibility and speed through completing a practice**
- **Learn to analyze others’ teaching in order to improve one’s own practice**
Visualize a practice

- What is the work of the teacher to ensure work is productive?
Replicate a practice

- Introducing a mathematical game (practices: making content explicit, giving directions, setting up small group work)
- Novices watch video then replicate the practice with partners
Solve pedagogical problems

In this clip we will see the teacher introduce the following decimal comparison problem:

Brian ran a mile in 7 minutes and 9/100 of a minute. Antonio ran a mile in 7 minutes and 9/10 of a minute. Who ran the mile faster?
Solve pedagogical problems

Turn and talk: What mathematical reasoning was the student using here? How might you respond?
Complete a practice

A student is presenting his solution to the problem:

A computer printer prints 70 pages in 2 minutes. How many pages will it print in 5 minutes?

His work includes the following:

\[
\begin{align*}
    & \quad \frac{2.5}{2} \left( \frac{70}{5} \times 2.5 \right) \\
    & = \text{70} \\
    & \times 2.5
\end{align*}
\]
Complete a practice

Listen and respond immediately with a question you would ask to elicit his thinking in a way that would support other students’ understanding of his work.
Analyze others’ practice

- Many different ways to analyze: common patterns, particular practices, modifying tasks, designing a sequence of lessons, checks for understanding
- Analyzing others’ instruction for the purpose of improving one’s own instruction
Video collections and tools for teacher education

TEACHING & LEARNING EXPLORATORY
TLE website
Overview of TLE

- An online resource where you can access unedited classroom videos and tools
- MET-Extension (METX) is the first featured collection and the Grand Rapids Elementary Math Lab (GREML) will soon follow
- Currently exploring the expansion of the TLE
- Full spectrum of authentic teaching practice - not a repository of solely exemplary videos of practice
- Not a research portal
TLE MediaSpace portal
METX collection features

- Securely streamed videos of real teachers doing real teaching
- Authentic videos of classroom lessons used in every day practice
- Multiple video records of the same teachers over the course of a school year
- Classroom and board view, as well as combined "stitched" (i.e. combined, stacked) version

This is an example of a “stitched” video where footage from two different camera angles were synchronized and made into a single video. Footage from the “classroom” camera is on top and footage from the “board” video is on the bottom.
METX collection

- Classroom videos from the 2011-12 and 2012-13 school years
- Videos of fourth to ninth grade classrooms
- 790+ Mathematics class sessions and 460+ Language Arts sessions
- Lessons from more than 290 teachers in six school districts
- Artifacts like lesson plans, assignment handouts, and blank worksheets
- Over 1,200 videos now available
- Videos with TeachingWorks tags (Instructional Practices and CCSS)
TeachingWorks video tags

- TeachingWorks has developed a set of tags that allow users to search the METX and GREML collections and to locate videos with specific content or characteristics.

- There are two kinds of tags:
  1. **Instructional practices tags**, or tags related to specific instructional practices and strategies that are being used in a lesson, such as whole-class discussions, small group work, and particular classroom management practices. Many of these tags correspond to the TeachingWorks high-leverage practices, which are instructional practices that are fundamental to competent teaching.
  2. **Common Core State Standards (CCSS) tags**, or tags related to the Common Core State Standards in English language arts or mathematics that are being addressed in the instruction in the video. Not included are tags that would apply only at grades K-1 or above grade 9 because the MET Extension videos are from fourth through ninth grade classrooms.
TeachingWorks tag glossaries

- Learn about the TeachingWorks tags
  - Instructional Practice Tags Glossary
  - English Language Arts Tags Glossary
  - Mathematical Practice Tags Glossary
  - Mathematical Topics Tags Glossary
- TeachingWorks Tags Booklet
Tag glossary features

- Item ID#
- Short description
- Link to tag long description
- Link to explanatory video clip example
Tag glossary features

**TW01 Whole Class Format**

- The entire class is talking, listening, or working together. Students are not divided into groups or working independently.
- The teacher might be working with the entire class at once.
- The teacher might be standing to the side while a student presents to the whole class.

This tag does not apply to instances where all students are working on the same assignment, but they are doing it independently or with a partner. In those cases, tag either individual work or small group or partner work as indicated.

**TW01 Math: Explanatory Video Tour**
Search

- All media
  - Enter key terms in search fields to search across all available collections

- Within a collection
  - When you open a collection, you can “search this category” using key terms

- In a video
  - “Search in video” option helps users locate 5-minute “tagged” segments
Searching within a video
Other TLE tools

Playlists

- Allows users to group videos from collections into saved lists and send them to Zaption

Zaption

- An interactive tool that allows users to create short clips from full-length videos and share interactive "tours" with other users

LMS Integration

- An option to integrate the TLE collections with learning management systems such as Canvas
Available video to support interns’ learning of practices

OTHER VIDEO COLLECTIONS
GREML collection

- The Grand Rapids Elementary Mathematics Laboratory (GREML) 2012 collection will be available by April
- Classroom videos of entering fifth grade students
- Videos of pre-brief and de-brief of lessons with educators
- One week of consecutive mathematics lessons
- Artifacts include lesson plans, class handouts and student work
- Videos with TeachingWorks tags (Instructional Practices and CCSS-Math)
High-Leverage Practices Video Exemplars Collection

- Teachers were pre-screened and identified as having exemplary practice for consideration in collection
- Classroom videos captured in the 2012-13 and 2013-14 school years
- Video range includes Kindergarten to high school classrooms
- Mathematics and English language arts lessons (in addition to Social Studies, Science Literacy and other content)
- Lessons from teachers in diverse school districts in Michigan and California
- Each video clip features a TeachingWorks’ High-Leverage Practice (HLP)
- Video segments and full length lessons will be available by August, 2014
Summary of video work

- Uses of video
  - Visualize a practice
  - Replicate a practice
  - Solve pedagogical problems
  - Complete a practice
  - Analyze others’ teaching
- Teaching and Learning Exploratory
- What’s next?
Collection feedback

- What resources would you like to see?
- Response card
QUESTIONS
Thank you to our partners
Become a TLE member today!

https://tle.soe.umich.edu/

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TeachingWorks
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