21st Century Teaching with Streaming Media

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Three Ideas I Must Use Right Away

1.
2.
3.

Things I must learn how to do:

Things I need to check on when back at school:

1.
2.
3.

Ideas, techniques or strategies that greatly resonated with me:

1.
2.
3.
4.
5.
Really Big Ideas
for 21st Century Teaching With Video

Less is More!
What’s Yours is Mine!
Do Something With It!
Make it HOT!
Aim it!
Make it Stick!
Practice the 4 Ps

Pursue Student-Created Content
ACTIVATE your video experience by having students DO something with the video. Here are some ideas that you can employ either BEFORE, DURING, or AFTER the video is shown.

BEFORE the video
- Ask students “what do you think is included in this video?”
  - This can tell you what they already know about the topic
  - Students will then watch the segment more closely to see if their ideas are included
- Give context for the video, or explain why you’re seeing the video
  - Prepare students use word webs concept maps or diagrams to visualize relationships
  - Engage in a hands-on activity to provide background for the viewing
  - Focus attention on your purpose or goal
- Connect: relate the video to the students’ lives
- Explain what may be unfamiliar or preload the vocabulary

DURING the video
- Use “Director” Strategies
  - Conduct viewing “stops”
    - Ask students to make a prediction
    - Ask students to make Inferences or formulate hypotheses
    - Ask students to discriminate on detail
    - Ask students to forecast an ending
  - End the video prematurely: kids can discuss how it will end
  - View the video segment without soundtracks
  - View the video segment without visuals (90% of a film’s information is often in the narration)
  - Critical point variation: show the video to a critical point, stop the film, and employ a graphic organizer. Students then analyze and predict what comes next. Discuss. Continue film
- Use Collaborative Strategies
  - Try the group viewing guide: divide the content of the film into five topics; divide the class; after the video, each group meets to discuss their piece and then shares with the full class
  - Try the jigsaw viewing guide: students count off from one to three; each number is assigned a salient topic; after the movie segment, have the groups form (with numbers 1, 2 and 3 in each group) to discuss their piece or obtain a piece of information for an organizer or note-catcher
- Try the partner motivation strategy: pair students and ask them to discuss a specific topic in the film segment to come; show the film; meet again with their partners to compare their responses to the concepts presented in the video segment
• **Use Visual Strategies**
  
  o Provide higher-order thinking activities for table work during the movie segment: tables, compare and contrast charts, diagrams, illustrations
  
  o Employ graphic organizers to categorize, conceptualize, or summarize learning

• **Use Traditional Strategies**
  
  o Illustration and identification strategy: show a film that illustrates specific concepts and ask students to identify specific examples
  
  o The inquiry model: ask an essential question or collect data from the video segment
  
  o Provide students with center-based or full-class focus questions
  
  o Employ a traditional viewing guide

**AFTER the video**

  o Sum up the viewing experience
  
  o Create follow-up activities, such as:
    
    ▪ Give students cloze scripts and have them filling in missing words in the dialog lines
    
    ▪ Engage in small group work to illustrate, contextualize, conceptualize, motivate, orient, visualize, analyze, or engage in discourse
    
    ▪ Employ graphic organizers to categorize, conceptualize, or summarize learning
Techniques

1. Show students scenes presented in a form different from that originally presented.  
   http://mediacast.bvsd.org/tight_url.cfm/URLID/2087 (K-3 Math segment)

2. Use novel visual materials to measure principles that require students to apply knowledge.

3. Ask a question that creates and asks students to respond to a condition contrary to fact.

4. Plumb for videos that represent analogies, or plumb for student-conceived analogies from a vignette.

5. Select segments that can be used as examples of principles or concepts, and ask students why these are or are not good examples.

6. Use competing, divergent, contrasting, or comparative vignettes to discover relationships among similar or dissimilar topics.

7. Identify assumptions and analyze criteria based on a segment viewing

8. Use charts, tables, rubrics or conceptual organizers with a video segment to lend support for analysis or interpretation
   See Graphic Organizer Link (Secondary, Social Studies)  
   http://mediacast.bvsd.org/tight_url.cfm/URLID/2100 [Sitting Bull]  
   http://mediacast.bvsd.org/tight_url.cfm/URLID/2103 [Lincoln]  
   http://mediacast.bvsd.org/tight_url.cfm/URLID/2101 [MLK]  

9. Require students to respond to new situations.

10. Present students with a problem situation video vignette and ask them to justify their predictions, assumptions, or conclusions.

11. Learners respond to a simulation-like question which presents a brief realistic scenario, highlights a real-world cause-and-effect relationship, and asks learners to make a decision to display their understanding of this relationship.
   http://mediacast.bvsd.org/tight_url.cfm/URLID/2093 (High School, Communications and Social Studies)

12. Learners see an out of order sequence of segments and then are required to sequence them, providing justification.

13. Learners respond to video-based dilemma for which there is no answer, or there are multiple right answers, given the available data.
   http://mediacast.bvsd.org/tight_url.cfm/URLID/2090 (Secondary, Is blogging an opportunity for alternative voice or uncensored rants?)
MAKING LEARNING STICK

How do we make learning ‘stick’ and richly resonate in the minds and hearts of learners? How does recent psycho-social and brain research inform our 21st century use of video and streaming media? The book, Made to Stick, by Chip and Dan Heath, provides some useful instructions that we can easily apply to our effective use of modern streaming media:

1. Seek Simplicity:
   - Use only what’s core and compact (core + compact = simplicity)
   - Don’t always bury the lead
   - Eliminate NOISE

2. Uncover the Unexpected:
   - Use mysteries
   - Use the gap theory of curiosity
   - Both of the above are like having an itch you need to scratch!
   - Used well, both are more like intellectual flirting than teaching!

3. Focus on the Concrete:
   - Make the abstract concrete through streaming media

4. Leverage Credibility:
   - With teenagers, use anti-authorities, rather than authorities, to establish credibility
   - Look for streaming media featuring anti-authorities

5. Pursue Emotions:
   - We feel for people, not abstractions

6. Tell Stories:
   - A story is powerful for the context it provides
Metaphorically Speaking

The Teacher as Movie Director

How can we use video more effectively? Picture yourself as a movie director, and use the following ‘interpretative’ techniques:

‘Directing’ a Video

- Plan for learning commercials; stop for “commercial breaks” (once or up to 5 times) during its progress to check for learning, discuss what to do, engage in a hands-on activity, start a writing activity, or predict what’s going to happen next
- Talk over the video if what you have to say is more important than what the video has to say
- Turn down the volume and narrate the video yourself
- Let the students view the video once and then turn off the volume and let the students narrate the video themselves
- Turn on closed captioning, turn off the audio, and let students to read the video instead of viewing it
- Turn on closed captioning and leave audio and video running so students can hear and read the video
- Freeze your projector and let students listen to the audio only; then predict what the visuals will be
- Zoom in on a video to clarify a concept

Knowing when to pause a video

- If the narrator asks a question, have your students answer the question before the program does
- If what is presented on the video prompts a visceral reaction from the class, pause the video to discuss what they saw or heard
- If it is obvious from observing the class that the information presented is not clear, pause the video and check understanding

The Four-course Meal

When is video most effectively employed? Think about video as any of the dishes found in a 4-course meal:

1. Appetizer:
   - Use video to tempt the learning palate
   - Introduce a new concept in an engaging or unique way that makes students want to learn more
2. Main course:
   - When a video contains most of the key information for a particular learning target
3. Side dishes:
   - Use video as a “side” dish adding a little extra to a learning target
4. Dessert:
   - Use the video to top off a lesson (e.g., after reading a book, compare and contrast the video version)
**Practical Research Tidbits**

*Research shows:*

- Media works best when we *attract* and *direct* student attention to the *learning target*.
- Media works best when it is presented *without extra details* (Moreno & Meyer 2000).
- Media works best when it is clearly *relevant* to the lesson (Moreno & Meyer 2000).
- Media viewing *without clear context* and *without planning* carries the same deleterious effects of passive television.
- One of the best ways to avoid television response or passive consumption of media is to *split the video* shown into short segments. (Denning)
- Conscious use of shorter clips stimulates *analysis* and *discussion*.
- Incorporating short *clips* from many sources into one instructional piece (for contrast, comparison, or constructing a case) provides significant effects on cognitive development (Hoffer, 1992).
- Video generally holds students' attention as much as 34 minutes longer than traditional methods.
- Video focused well improves *vocabulary*.
- Using *sound-turned-off techniques* (teacher narrates; student narrates; student predicts) is effective in reaching ELL learners.

*Research Also Identifies These Inappropriate Uses of Video:*

- Edutainment
- Filling time
- Reward for good behavior
- A break from learning
- Using media to get kids to pay attention to the subject
- Using video kids to keep quiet and get them under control.
NEW AND CREATIVE ROLES FOR VIDEO

- Strategy: Think about using video as home work through URL builder
- Strategy: Use video segments in an assessment role
- Strategy: Integrate your clickers with video
- Strategy: Use video segments that present actions and information contradictory to the viewers’ prior conceptions (the goal is to create cognitive conflict that will challenge the learner)
- Strategy: Use paired-viewing techniques
  - Description technique: one student in each pair turns their back to the screen; the other student faces the screen; the student who can see the screen describes what he can see to his partner; the path of student in each pair will be motivated to see what they have missed as well; have the partners then switch roles
  - Narration technique: half the class leaves the room while the remaining watch a section of the video; when the out group returns, they are told about the video
  - Split class technique: half the class is sent out of the room, while the remainder watches the video segment without sound; then the 2 swap places. The next group listens only to the segment’s sound. Students are then paired to talk and piece the story together.
- Role playing technique: students role play sequences from the video; or role play things that are not in the video

SUPPORTING THE SECOND LANGUAGE LEARNER THROUGH VIDEO

- Encourage group talking and processing as an activity after viewing a video segment
- Encourage not just summarization, but speculation
- Encourage not just description, but thinking skills
- Focus on vocabulary support through video
- Allowing students to narrate a soundless video
- Encourage second language learners to transfer the knowledge they already have to the new video segment

OTHER GREAT ROLES FOR YOUR VIDEO SEGMENTS

- Find segments that give students the ability to be there (permit bringing concepts to life or travel through time)
- Find segments that enable seeing situations or experiments that would normally be too dangerous or expensive
- Find segments that reveals hidden worlds (e.g., time lapse, night, astronomical, microscopic imagery)