Designing and Using Video Virtual Workshop 2014 – responses to registration questions

In general, what do you consider to be the characteristics of a strong assignment/activity?

- It's engaging (8)
- Includes active learning (7)
- Clear learning goals and objectives (5)
- Gets students thinking about how they are learning (4)
- Students make observations, formulate questions and multiple hypotheses, research and test their ideas (4)
- Identifies and addresses potential misconceptions (4)
- Clear communication of goals to students (3)
- Specific topic (3)
- Scaffolding: intro, basic problems, progressively more challenging (2)
- Multiple ways to present an idea (2)
- Clear grading rubric
- Multiple assessment tools
- Relates content to students' lives

What are your expectations for this workshop? What topics would you like to cover? What would benefit your own instructional practice?

- How to make more professional videos (7)
- How are others using video in class? (7)
    - especially online (4)
- Developing effective assignments/lessons that use video (6)
- What techniques work best in various settings(field vs. classroom)? (4)
- Existing video resources (3)
- Tips for what software to use/purchase (2)
- Copyright/getting permission from people who appear
- Does anyone else use an iPad as a drawing tool?
- I want to get better with Camtasia
- Hoping to NOT focus on technical aspects of how to take video
- Sources of funding (beyond NSF) for making videos
- how to add subtitles

What software and hardware do you use (or plan to use) when you make videos?

Hardware (almost everyone edits on a computer):

- point-and-shoot digital camera (3)
- iPad & stylus (2)
- cellphone (2)
- webcam (2)
- GoPro (2)
- DSLR (2)
- Canon Vixia HF10.
- camcorder
- headset microphone
- Two-camera shoots with Panasonic VX2000 digital cameras

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- Google glass

Software:

- Camtasia (7)
- iMovie (6)
- Windows Movie Maker (4)
- Adobe Premier (3)
- Final Cut Pro (3)
- Photoshop (3)
- PowerPoint (2)
- Adobe After Effects (2)
- SnagIt (2)
- Airplay
- Mac application to view sketches created using iPad & stylus
- Tegrity, embedded within Blackboard
- Illustrator
- None
- Adobe Captivate
- Ink2Go
- Microsoft Expression Encoder
- Light Room
- WebEx
- GIMP

Why are you interested in participating in this workshop? Check all that apply.

Teaching quandary.	Research interest.	Pedagogical interest.	Colleague suggestion	Community interest.	Career develop ment.	Other:	If other; please specify:
		x		x		x	Always looking for new ideas/approaches that involve technology
		x	x	x		x	Interested in presenting my ocean predictive demo videos
		x	x	x			
x		x					
	x	x	x	x			John Taber, IRIS, recommended
x		x					
		x	x				
	x			x			
x		x			x		

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	x	x		x	x		
		x		x	x		
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x	x	x		x	x		
x		x					
	x	x		x	x		
	x	x					
x		x		x		x	I am starting to use internal short videos for internal USGS professional development, looking to improve existing approaches and expand use where appropriate and useful.
		x		x	x		
x		x			x		

What is your experience in teaching with video in your own course(s)? Please list any courses with a brief description of what you do.

- I have been utilizing videos online, primarily from http://www.learner.org/ I also like to tap in to some TED videos (although there is not much for geoscience). The videos serve as an assignment outside of class for a JiTT exercise, or for when I am out of town and have to cancel class. I never show full-length videos in class, as that is a waste of time for the students - if there is a piece of a movie I want students to see, I may show clips of videos in class (for example, one course I teach is called Natural Disasters - Hollywood vs. Reality). In one recent course, I would show students TED videos and have them break into pairs to answer questions high on Bloom's Taxonomic Scale.
- I use predictive demo videos (both from the lab and from the field) in my Oceanography 100 Online course. Predictive videos are where students watch an introductory video (Part 1) and then must predict what's going to happen before they are allowed to see Part 2. This format tends to increase student buy-in for the demo and they get really jazzed when they are correct in their prediction. I've also created some YouTube instructional videos for my students. I teach Oceanography 100 Online (introductory oceanography), where I have created a series of predictive ocean demo videos for use by students. I can demonstrate the use of these videos in class, for example, Summertime/Wintertime Beach Conditions and Soda Can Floatability (which is related to density). I can also show some of my YouTube instructional videos as resources.
- I primarily work with introductory geology courses. We use video from the Internet to show some processes, such as shorelines and volcanoes. However, I have also developed my own lecture videos and demonstration videos for students to view before coming to lab for topics such as

determining rate of plate movement, mineral properties, and using topographic maps. In addition, I am working with a colleague who is using video-lectures to flip his applied geophysics and structural geology courses. We are working on a video tool to reproduce the experience of a student being in a lab where the student can view the process of annotating thin sections, maps, and field photos.

- I have only recently started making short videos, mostly in Tegrity so dull screenshots of PowerPoint slides with me droning on in the background. I have used these as supplements to lecture. I would like to make better videos and to do more things in them. I particularly would like to make a video of our petrology field trip in March, maybe 2 minutes per outcrop (we visit ~15 outcrops over 2 days).
- I have videotaped Earth-science workshop instructors talking about geoscience topics and put them on YouTube (http://www.youtube.com/playlist?list=PL83859539437B72C3). The instructors then give the videos to teachers to reinforce lessons taught. I also work with university professors, middle- and high-school teachers, as well as government outreach groups to create animations that incorporate video to target complex topics (ex. focal mechanisms: http://www.youtube.com/watch?v=MomVOkyDdLo&feature=c4-overview-vl&list=PL8FDF28B8FD0C2E56).
- I have made several videos and use them each time I teach
- Very little. I have used videos others created.
- GEOL 108 - Weather and Climate - fully online course I taught this course last summer (my first fully online course) and immediately found the disconnection of the online environment frustrating. So, I quickly got up to speed on making my own videos. I used SnagIt and Camtasia (just the 30-day trial) and made short videos about important and/or particularly challenging concepts. I created a YouTube channel for myself. I also started requiring discussion posts before exams where students had to ask questions. I responded to the questions with quick little videos. I enjoyed making the videos and received positive feedback from the students about them. I learned how to do some editing, but would really like to take them to a new level. One of my videos was selected to be critiqued by TechSmiths' "Screenchump to screenchamp" program. It was fun to see what I could've done better and to hear from them what I was doing well.
- In some of my courses, I have provided links to good videos related to the content I'm teaching as supplemental learning aids. In one course, I created 4 of my own videos that were screen-capture recordings that walked students through homework assignments.
- I have made videos to supplement homework assignments previously, and of course have used short videos to supplement lecture material, however I am just beginning to develop videos to allow me to flip the classroom experience. My main focus for these videos will be for GEOL B11 - Historical Geology and its lab and my GEOL B10L - Intro Geology Labs this semester. I have also used interactive video for online office hours and exam reviews (e.g., http://www.youtube.com/user/rschott/videos?shelf_id=2&sort=dd&view=0).
- I use commercially available movies & documentaries, TV- news clips, and amateur videos made by academics. Ways in which I use videos include: **1)** I show a short segment (3-5 min) of a TV new story about a subject relating to class material or interview of a scientist talking about their research. Class Assignment = small group discussion problem or else a general class discussion of the topic in the video. Example: In March of 2013, a large mass movement damaged roads and houses on Whidbey Island, WA. I showed video of TV news reports with good areal footage of the area during my mass movement lecture and asked students to identify what categories of mass movements had occurred and to propose a long-term solution for local residents. After students had finished their small group discussion, I asked them to share and defend their answers in a general class discussion. I will show film of a scientific experiment. After the experiment is

explained and started, I pause the video before the results are shown. Class Assignment = Small group discussion: Each group is asked to predict the outcome of the experiment and to defend their answers. video is continued when students have completed the assignment. **2)** I show part or all of a documentary relating to topics covered in class. Class Assignments: Students are given individual worksheets to help them follow the video. I pause the video every 5-10 minutes to discuss with the class: what has been shown so far; how the video relates to material previously covered in class; and ask students to predict what events will be shown next, as well as checking for general questions. **3)** I also show short (2-5 minute) video clips to illustrate lecture points and explain dynamic relationships such as long shore drift or reconstructions of dinosaur locomotion. I have not yet used videos of my own in teaching. Classes in which I use videos include: Introduction to Physical Geology; Dinosaurs; Introduction to Oceanography, and Interdisciplinary Sciences. Examples of longer videos I use are Nova disaster videos (e.g., Eruption of Mt. Pinatubo, Hurricane Katrina); Blue Planet videos on life in the oceans; Walking with Monsters, American Experience (e.g., Dinosaur Wars). Examples of shorter videos I use are TV-news clips and 5-7 minute clips from videos such as The Heimaey Eruption, Rivers of Fire, Hawaii, Encyclopedia Britannica: Rivers of Sand, Sculpted by Floods, Walking with Dinosaurs, Plants Are Cool, Too! Episode 2 : Fossilized Forests!

- I embed short videos in some lectures I also record my own videos to supplement my online courses
- I primarily use video in my introductory geology course that focuses on natural hazards. I use a handful of videos that show the hazards, but because this is an online course, I use a lot of screen capture lecture videos in place of traditional lectures.
- I already use YouTube videos in my Introduction to Earth Science class to better illustrate geological concepts. Last semester I was a member of a course redesign working group on my campus and we are being encouraged to "flip" our classrooms. This semester I will be producing some short videos to use in place of my regular lectures. I don't want these videos to just be me talking to the class.
- We use video in most courses-- from YouTube clips to time-lapse videos we produced.
- Videos are used sparingly for a change of pace within my intro level geoscience courses. I also find them useful to virtually bring students to locations the course could never physically travel to.
- So far I have worked on three short internal training videos for USGS scientists (mainly hydrologists) borrowing tools from our geophysical equipment program. 1) One is on using a new borehole video camera system to inspect groundwater well conditions; this is completed. 2) The second is step-by-step instructions on setup and operation of a seismometer for passive seismic surveys for groundwater studies; this is almost done, but I am having problems with the sound. 3) The third provides an overview on the theory and basic operation of a specific broadband electromagnetic induction tool; I am still finalizing the script for this (it will be all voiceover). This is an adaptation of a live-streamed training that I coordinated and that we conducted via WebEx (which we do all the time) and webcam (something we don't do often). I created the videos from start to finish: developed the plan, wrote or co-wrote the scripts, did voiceovers, and did all the filming and editing/processing. (Happily I am not on-screen at all so far.) Also, I coordinate a monthly webinar training series on groundwater science topics (from modeling to geophysics to policy) for anywhere from 40-150 participating USGS scientists; I train and support the presenters on how to use WebEx and am trying to get them to incorporate more interaction and live webcam to expand what we can do in the seminars. I also conduct remote trainings for USGS scientists, and have occasionally used webcams as part of the WebEx-based sessions; these trainings included training colleagues on resources and tools they can use for

remote training and support (basically, train the trainer workshops). I typically record the webinars and make them available to our scientists internally online.

- I use excerpts from Nova, Hunting the Elements when I teach bonding in mineralogy. Also, there are some very good volcano programs on Nova. I use YouTube videos in Historical Geology that illustrate the history of the earth through time. The students really like the videos to augment the book and lectures.
- I often use videos from YouTube (some better than others) along with animations from the masteringgeology curriculum.

Please describe how you use video in your own research and other professional work.

- I don't use video in my own research. (5)
- I use video primarily in my teaching, showing students examples of geologic processes that a still photo cannot capture. I have also recorded video of myself as a "talking head" to make personal connections to students when I teach online. As part of my service work on campus, I was coordinator of the campus Laboratory for Civic Engagement and recorded monthly video updates for the Laboratory donor.
- As an oceanography textbook author, there are many videos and animations that have been created for use with my textbook. I've been involved in creating, managing, and providing assessments for all of them.
- I create training and safety videos, using either camcorder or Camtasia/ppt, for our rock prep and research labs.
- I typically take shaky handheld video of volcanic eruptions with a camera or phone, mainly to convey the excitement of being there. I also take videos of lab experiments, partly for outreach but also to use in research talks (e.g. crystallization of lava videos on my YouTube channel)
- Incorporating animation with video is a powerful tool to captivate a low-attention audience. I film Earth-science workshops, middle-school teachers, and esteemed guest lecturers, then add text, slides, graphics, and animation to activate multi-sensory learning.
- I use them for filming analog models of tectonic processes
- Have developed brief videos for research.
- I am working to develop active-learning online courses and trying to use some very basic research methodologies to assess the impact of these developments on student performance and attitudes.
- I don't use video in my research so this workshop will be very helpful in getting started.
- I have made T-L videos of large slow landslides for ~10 years. Zach (see below) is studying how students learn from T-L videos, comparing static before/after images to pre-made T-L videos to student generated T-L videos.
- I use an older VHS video called "Keeper of the Fire" to showcase the eruption in Mt. St. Helens prior to a completing a laboratory activity (focusing on volcanic landscape change and mathematical volume of rock blown apart). The video is a bit dated with cheezy music but it shows students the eruptive power in which trees were snapped like match sticks and reveals "snowy" landscapes that are actually deeply covered in volcanic ash.
- I support internal USGS hydrogeology and hydrogeophysics training (professional development) for professional hydrologists, as well as development of online information for the public about USGS work. My office is just starting to explore the use of video as a means to expand and enhance remote, asynchronous, and/or on-demand training as part of our existing formal and informal staff training. The existing video examples I mentioned are primarily for on-demand training either as stand-alone or as follow-up to more formal training. We are hoping to use video to support ongoing training in an era of increasing travel restrictions, and also to offer on-demand

training that frees up staff to focus on training needs that require real-time, personalized, and/or hands-on attention. My offices are responsible for offering informal remote and in-person training, as well as structured in-person workshops that range from a couple days to two weeks; almost all of them have a heavy field component. (Side note: Before going back to get my masters in near-surface geophysics, I worked in science ed for 10 years in university, informal ed, and K-12 settings, including running professional development workshops for teachers. I have worked with USGS for 14 years, and internal training is part of my job duties.)