Can Videos of Active Teaching Strategies Support Faculty Adoption of Research Based Instructional Strategies?

~

FoS Education development Openhouse April 2015

Francis Jones
Earth, Ocean & Atmospheric sciences

*This slide-set licensed under Creative Commons, attribution non-commercial share-alike.

Contact: Francis Jones, Science Teaching and Learning Fellow, EOAS, UBC, fjones@eos.ubc.ca
In answer to ...

- I can’t IMAGINE teaching that way!
- There’s no time to watch OTHER teachers work.
- I wouldn’t DARE ask to observe a classroom.
- Every class is different – how can I catch the BEST one?
- Students will wonder why I’m there.
- That would never work in MY discipline.
Videos of “exemplary” practice in action

• Formal permission from instructors AND students.
• Variety of disciplines, settings & strategies.
• Whole class filmed often with two cameras.
• Careful production to emphasize keys to success.
• Accompanying resources and references.
  – What to observe in videos
  – Context and instructor’s notes
  – Resources shown
  – References
Design criteria

1. ~6 minutes each
2. Instructors’ voice – but minimal talking heads.
3. Student voice – but no simple endorsements.
4. Minimal 3rd party “voice-over”.
5. Visible evidence of best R.B.I.S. practices in action:
   – active students; peers interacting; “deliberate practice”;
     expert / novice interactions including feedback; others ...
6. Help viewers to ...
   – set realistic expectations for specific teaching strategies;
   – imagine themselves in these roles (students & instructors).
7. Details in accompanying written content.
8. Variety of settings: math, geoscience, physics, etc...
9. Enable communication (comments & questions)
Collection “packaging” – the website
http://blogs.ubc.ca/wpvc/

Supplementary content for each
X 7

Video

Scrollable notes on what to watch for

Comment space
1. Short lab + follow-up active class

• EOSC; 3rd year science majors
• 150 students
• professional production
2. Worksheets + video, twice in one class

- EOSC; 1st year all students
- 300 students
- professional production
3. Clickers, group work; a math “proofs” course

- MATH; 2nd year math majors
- 60 students
- professional production
4. Real-time clicker qn’s and worksheets

- EOSC; 3rd year science majors
- 150 students
- amateur production
5. Two stage exams in large classes

- 1st year all students
- 350 students; lecture
- amateur production
6. Clickers + group work, etc; physics 100

- PHYS; 1st year science majors
- 250 students
- professional production
7. Framework/capstone/jigsaw activity

- EOSC; 2nd year geoscience majors
- Pairs + large groups in 50 minutes
- 90 students
- Professional production
Your preferences for “useful” videos:

• Development directions depend on user’s needs.
• Your opinions can help prioritize further work.
Current video clip examples

1. Lab setting and active-class follow up strategies
   – Paleontology for 3rd year science majors
2. Basic group work strategies
   – Natural Disasters for all 1st year students
3. Math class group work and follow up
   – Mathematical proofs for 2nd year math majors
4. Tutoring with worksheets real time clicker questions
   – Climate change for 3rd year science students
5. Two stage exams in large classes
   – Natural Disasters for all 1st year students
6. Physics 100
   – Worksheets in an active class
7. A framework-concept capstone activity
   – 50-minute activity including pairs and large groups
References and resources

• http://eos.ubc.ca/about/faculty/F.Jones.html
• http://eos.ubc.ca/research/cwsei/
• http://cwsei.ubc.ca/