Videos for Supporting Faculty Adoption of Research Based Instructional Strategies

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EOS-SEI

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Digital Showcase Goals …

1. Can videos help CONNECT instructors with best practices?
2. What video characteristics will help instructors incorporate R.B.I.S. into their teaching practice?
3. What does it take to generate – and deliver – useful clips?

Conventional approaches – all good …
- but each with associated challenges

- Workshops
  - Time, commitment, "disconnected" from teaching-time.
- Deliberate sharing with colleagues
  - Time, commitment, needs a difference in education expertise.
- Embedded education support
  - Expensive, assumes department-level commitment
- Others ???

Inspired by …

- "*Wisdom can't be told*" … Gragg, 1940
- Reluctance to adopt new, "strange" practices if they can not be imagined.
  a) What is it like for THEM to teach this way?
  b) What will the classroom look and feel like?
- *"Oohhhhh! – So that's what it's like !!!! "*
- New adopters need help setting expectations.
- Setting expectations is time consuming and hit-miss.
- SO . . . Why not make video clips to help inspire ? ? ?

**STLF = Science teaching and learning fellow*
= "embedded" education development and support.

How can digital video resources contribute?

- Enable visualization of what RBIS* are like.
- De-coupled from timing and variability of classes.
- Produced to highlight best practices in real settings.
- Add “wrapping” for context, materials, justification.

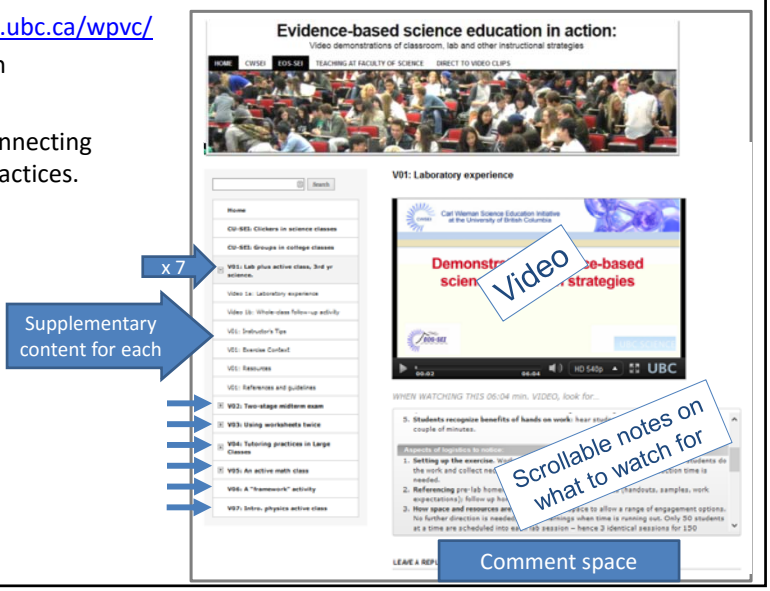
*RBIS = Research Based Instructional Strategies

Costs (and some comments)

- Takes some practice to design – and/or collaboration with video specialists experienced in education settings.
- Willing, collaborative exemplary instructors.
- Permissions from everyone visible, and strategies for others.
- Filming (professionals or amateur).
- Production – an iterative process.

Our collection's "packaging" – the website

- http://blogs.ubc.ca/wpvc/
- Organization
- Content
- Facilitate connecting with best practices.



Active learning in a Math class

- Mathematical proofs for 2nd year math majors
- Professional filming & production (2 cameras)

- 0:28-1:20 (lesson outline; little talking head)
- 1:20-1:50 (Socratic discussion)
- 2:00-2:20 (excellent use of clickers)
- 2:55-3:20 (narration + close-up of students working)
- 3:45-4:05 (instructor articulates "ahah" moment)
- 4:20-4:30 (real time discussion of student work)
- 4:55-5:25 (student perception of benefits)

What key aspects did you notice?
OR – what would you WANT to see in these?

- Eg – Talking heads? Classes in action? Students busy … ?
- 1
- 2
- 3

Climate change: “tutoring” 150 students

- Amateur filming & production (1 fixed camera)
  - 2:00-2:40 (helping a group + hints to all)
  - 3:05-3:40 (real time clickers as checkpoints)

Two stage exams in large classes (amateur)

- "Natural Disasters" for 300+ 1st year students
- Amateur filming & production (1 fixed camera)
  - 2:30-2:45 (succinct voice-over explaining)
  - 3:35-4:00 (view start of solo-grp transition)
  - 5:55-6:55 (visualize the teaching/learning setting)

Some design criteria

1. ~6 minutes each
2. Voice of instructors – but MINIMAL talking heads.
3. Voice of students – but AVOID simple endorsements.
4. Less 3rd party "voice-over" is better than more.
5. VISIBLE evidence of best RBIS practices in action:
   - active students; thinking; peers interacting; "deliberate practice";
   - expert / novice interactions including feedback.
6. ENABLE viewers to …
   - set realistic expectations for specific teaching strategies;
   - imagine themselves in these roles (students & instructors).
7. Put details that can be read into written content.
8. *Variety* of settings is very important (math, geoscience, etc…)
9. Enable communication (comments & questions)

Other video clips

We showed

- Math class group work and follow up (professional)
- "Tutoring" large classes with worksheets and real time clicker questions (amateur)
- Two stage exams in large classes (amateur)

Others

- Lab setting and active-class follow-up strategies (professional)
- Basic group work strategies (professional)
- 50-min "capstone" active class (solo, grps, whole class) (pro.)
- Strategies in first year physics
- Growing …

Revisit faculty's needs and the potential contributions from videos of RBIS in action:

- Participants:
  Any thoughts on what characteristics of video clips would help instructors adopt AND sustain use of RBIS?

- Can carefully crafted video clips connect new and experienced instructors with evidence-based best practices?

Further questions and ideas

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Thanks to IUT, Media folks at CTLT, Faculty of Science Dean's office, instructors and students in classes we filmed.

References and resources

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