Rappelling the Ivory Tower: Developing Media for Scientific Discovery in GK-12 Classrooms

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Problems in Science Education

1. Students lack knowledge of basic scientific concepts
2. Standardized Testing & Loss of Critical Thinking
3. University Disconnect from Community
4. Educational Bureaucracy
How can video help?

1. Little Oversight by School Administrators
2. Low cost method to reach larger student population
3. Quick method to update curriculum with hot topics or current events.
4. Diversify knowledge sources
What is SciFlix?

- SciFlix is a series of no-cost, short instructional multimedia curricula, that present clear, concise and current summaries of the latest concepts and discoveries in global science.

- Developed & produced by faculty and staff at the University of Illinois with local GK-12 teachers.
SciFlix Team

1. Bruce Fouke, UIUC Faculty
2. Colleen Cook, UIUC Staff
3. Charly Crawmer, Urbana Middle School
4. Craig Huff, Leal Elementary School
5. Amy E. Kellogg-Bouchard, Urbana Middle School
6. Jacalyn Rauch, UIUC Undergraduate Student
Making the Video

1. Topics for videos-
   a. Scientific Concepts
   b. Current Events

2. Brainstorming

3. Shooting in the field vs. Writing a script
Additional Benefits of Using Video

Did we mention the first shoot was underwater?

• Ability to share content and research that might otherwise be unavailable to students.

• Helpful for illustrating movement, context, scale, and change.

• Reason to splurge on a wetsuit.

Curacao, Netherlands Antilles
Bruce didn’t mention that we would be scaling a mountain...

COVERED IN CACTI!!!
Making the Video

1. Topics for videos-
   a. Scientific Concepts
   b. Current Events

2. Brainstorming

3. Shooting in the field vs. Writing a script

4. Feedback!
Research in Context

Video player here
Pedagogy of Video

1. Video shouldn’t replace teaching or teachers.

2. Fundamental concepts can translate to all ages.

3. Curriculum guides must be designed to supplement videos and create age-appropriate discussions.
Curriculum Guides

1. Important for integration into the classroom, especially for varying grade levels.

2. Opportunity for collaboration between University faculty and local Gk-12 educators.

3. Allows for greater content diversity and expanded knowledge sources.
Plans for SciFlix

• **SciFlix Temp Website**

• **Instructional Videos & relevant curriculum guides.**

• Long term goals-ability for other teachers to upload their own curriculum guides.
Lessons on Collaboration

- Updating the curriculum seemed daunting, but media & technology can provide easy and effective solutions.

- Interdisciplinary work can yield incredible opportunities for everyone involved.

- Why not?