Using Spark Pages to critically analyze progress and challenges in a lab setting



Susan C Chapman Associate Professor Biological Sciences

The Challenge of Critical Thinking

- select the right type of class to introduce CT skills
- CI groups ~6 students are a good size and there is more time to spend with students each week
- CU Adobe Creative Cloud via Enterprise to download the tools onto your mobile device
- Clemson has a master license therefore free to you and your students

Download each of the following

Visual storytelling

Transform words and images into incredible visual stories you can quickly create and share right from your mobile device.



Using Adobe Spark – it's really easy

Kyle Anderson

Projects in Spark https://spark.adobe.com/sp/

Patagonia

Free Design Workshop - How to use Spark - Adobe in the Library

7 creative projects

Student creative assignments

My CI students are using the Spark Pages to record their daily activities in the lab. They present a spark page each week at lab meeting.

Each of them uses a different approach, and they are trying different approaches each week as they become more confident with the software, seeing what other students are doing, gaining knowledge of lab techniques, and with the experiments they are working on.

I think the best thing is that they can take videos of the fish. That seems to be very popular. They have a macabre fascination with fish that need to be euthanized!

They use a combination of still images, music, videos and commentary.

The most important thing is that the students are having fun. They run around the lab with their camera phones recording everything that moves. They love showing their pages at lab meeting and we all have a good laugh. There is anticipation for each week's lab meeting to see who can come up with fun things. It has livened up lab meetings no end.

Challenges

The aim is that by the end of the semester there is a report each week built into the same spark page, so that the students can document their journey during the semester. To begin with it all seemed a bit jumbled and piecemeal.

My biggest frustration is that I cannot edit or comment on the pages directly to help students improve their work. It works better if students use the same page to add onto each week for continuity.

They did better in the second semester. Also, they started really commenting on each others pages – choice of music, fonts, still vs. video images.

I don't think that there is a way for the students to rearrange their page so that they can tell their story in a more flowing way. The students need to do more analysis in terms of the big picture.

Semester one

New CI student

First semester is mostly animal husbandry and learning about the projects ongoing in the lab

https://spark.adobe.com/page/IEvz7Pu22aCMI/

Jon Aldinger

Semester two

The students wanted to make short videos on standard protocols used in animal husbandry.

Euthanasia: https://spark.adobe.com/video/5xk1DIDFU538p

Fish Breeding <u>https://spark.adobe.com/video/eQGoRIP5caaqP</u>

Videos from the lab manager

To help students understand new protocols or enhance knowledge of molecular biology

RNA protocol <u>https://spark.adobe.com/page/czziqyfYoNTwL/</u>

Critical Thinking

All of these activities mean that students have to

- think about what they are doing
- observe how they are doing it
- determine what it means
- effectively communicate what they are doing

Improvements for next semester

- students need to do more big picture analysis in their second semester when they are doing their experimental work
- I'd like students to try to do voice-overs on their videos, rather than relying on music.
- encourage students to do their own thing, rather than copy others. I'm starting to see patterns develop

Questions?