Teaching Notes

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**Course Information**

Department: Science

Level: **Lower Undergraduate**

Course type: **Lecture**

Students: **Majors/Non-majors**

Number of Students: 19

**Module Information**

* Original Module Name: [Investigating human impacts on stream ecology: locally and nationally](https://qubeshub.org/qubesresources/publications/1095/1" \t "_blank)

Link to Original: <https://qubeshub.org/qubesresources/publications/1095/1>

[Adapted Module Name: (if applicable)

Link to Adapted Module]

Modified Module Name:

Files associated: (ie. Class Worksheet, Summative Quiz, Lecture Powerpoint, etc)

→ Homework I: Introduction to Biogeography (video exercise)

→ Homework II: Introduction to Excel (HHMI Excel Tutorials)

→ pre-exercise Quiz

→ post-exercise Assessment: (1) homework questions and (2) Exam questions

Modification Learning Goals:

* Develop a hypothesis looking at maps.
* Form a general understanding of local resources and databases.

**Teaching Notes**

*(Think about what you would like to read about this activity if you came back to it in 2 years)*

Suggestions for this section (not all required, and extras always welcome):

* What did you change and why?

→ I added discussion of databases developed locally for local waterbodies.

How did the activity go?

🡪 The activity went well. It sparked lively discussion in the classroom through which certain concepts were solidified. The students misconceptions about some ideas related to nutrients in rivers were corrected and discussed through critical thinking and analysis.

* + What went well and why?

→ The overall concepts were retained.

→ The students were invested in hypothesis development and we had a wonderful discussion that ended only because the class period ended.

* + What went wrong and why?

→ Time restraints prevented us from having more time to develop hypotheses on local databases and collect and analyze data from those databases, In the future, I will need to carve out more time more this exercise.

* What was the prep like?

→ The preparation time was minimal, particularly because of my previous knowledge of databases toed to local waterways. I didn’t have to spend time searching for these databases. I also had other teaching materials from when I’ve taught the topic in the past.

* + How much time went into prep?

→ 30 minutes to develop a powerpoint presentation for the class exercise.

* + Did you have to do any prep (i.e. grow cultures, grow seeds, order supplies) ahead of implementation?

→ No, I did not have much preparation other than to produce a short powerpoint presentation and locate and post my own teaching materials to Blackboard.

* Would you do this activity again?

→ yes.

* + What would you change in the future?

→ I would allot more time for additional activities.

* What do you wish you’d known before you ran the activity?

→ How engaged the students would be!

* Is there anything else you would like to make note of?
* How does this activity fit in your overall course curriculum?

→ This activity fit in very well with the course curriculum. It tied in concepts related to biogeochemical cycling. I coordinated the assignment with that topic.

* In what ways, if any, did you modify your teaching practice with this activity?

→ I added more background materials.

→ I added discussion on local databases. In the future I will develop this aspect

even more.