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: [Processes that Regulate Patterns of Species and Genetic Diversity](https://qubeshub.org/qubesresources/publications/1097/1)

Link to Original: https://qubeshub.org/qubesresources/publications/1097/1

[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:

* Successfully Navigate through Excel.
* Visualize best graphical representation of data.

**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 a pre-exercise assessment quiz and two preceding homework assignments: (1)  video assignment and (2) a series of three HHMI Excel Tutorials.

→ I used Spree candy instead of Starburst.

* How did the activity go?

→ THe activity went well. Overall, the students enjoyed it.

* + What went well and why?

→ The overall concepts were retained.

→ The students had fun with their migration attempts.

* + What went wrong and why?

→ Overall, this exercise would have worked out better in a more spacious room.

→ Time restraints prevented me from having students enter their own data and plot their own graphs as I had originally anticipated.

* What was the prep like?

→ First time preparation was a lot. Subsequent exercises will not require the same prep time since bags and their associated alleles can be used over and over again.

* + How much time went into prep?

→ 30 minutes to purchase supplies (Dollar store)

→ 10 minutes to find and print out all materials

→ 15 minutes to cut out all lizard pictures

→ 30-40 minutes to stick all lizard pictures to ziploc bags

→ 30-40 minutes to add candy to all bags

→ 15 minutes classroom preparation

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

→ Yes, most preparation occurred prior to implementation.

* Would you do this activity again?

→ yes.

* + What would you change in the future?

→ I would allot more time for post-exercise activities.

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

→ the amount of preparation time.

* 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 many concepts (biodiversity, biogeography, island biogeography, population dynamics, conservation biology, data analysis skill development) together for students.

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

→ I included assessment before, throughout, and after the exercise.

→ I added multiple homework assignments to ensure competency and understanding of concepts and practices.