**Implementation Plan**

**Course/Course format: BIO 200 General Ecology - Lecture**

**Module:** [Processes that Regulate Patterns of Species and Genetic Diversity](https://tiee.esa.org/vol/v10/experiments/mckee/abstract.html" \t "_blank)

**Quantitative learning objective:**

* Random sampling and experimental design
* Data entry and organization
* Graphical representation of quantitative data
* Graphing data in Excel

**Other learning objectives:**

* Hypothesis generation and testing
* Theoretical thinking
* Prediction Development
* Understand how processes of colonization and ecological/genetic drift are likely to affect species and genetic diversity on islands and/or habitat patches
* Application of concepts of island biogeography
* Identify the main forces that influence distributions of biodiversity

**Expected dates of implementation**: Late March 2019

1. What learning objectives (content) are you planning to address in your course using the selected module materials?

I plan to address the above listed quantitative and ecological topics objectives.

1. Briefly describe the pedagogical techniques you plan to use to facilitate the module and reinforce the learning objectives you identified above.

I will frequently assess student understanding using quizzes, homework, discussion, and exam questions.

1. Are you planning on making any adaptations to the materials? If yes, please describe them here. If no, please indicate why.

I plan on making minor logistic changes in order to adapt the exercise to a lecture setting (which means breaking the exercise up into smaller components) and by having a stronger emphasis on data entry and graph formation.

1. Do you think you will need to incorporate any supplemental materials with this module? If yes, please either describe what you are planning or include any materials you have already found.

Yes. I plan on developing a separate handout that reviews main concepts taught in the lab as well as a study guide that will guide students for assessment questions that will be posted on a follow-up exam. I will be gathering and using videos that students will be assigned to watch prior to the appropriate class periods for hypothesis testing, the use of Excel, and data interpretation.

1. What assessments are you planning on using to measure student progress? If possible, describe, attach, or provide a link here.

I will be developing exam questions that will serve to examine student understanding of ecological concepts learned as well as quantitative skills and methods.

1. Please provide any additional notes here (i.e. a to-do list of items that you need to accomplish before your implementation)

I will need to purchase the materials and conduct pre-exercise set-up; post videos on the use of Excel, etc.; produce and print a handout; develop study guide questions

**Reflection Questions for after your implementation**

1. Overall, how did your implementation go?

It went well overall. The students specifically enjoyed migration attempts. We celebrated successful attempts. The students felt that they learned a lot during this exercise.

1. What feedback (positive or negative), if any, did you get from your students about this experience?

Because I was not the lab instructor, I ran the exercise in my classroom. Students said it would have worked better in the larger lab setting.

1. Do you plan on continuing to use this module in your future courses?

I would like to use this module again. I thought it covered a wide range of ecological topics with the added bonus of hypothesis development skills, and other skills including data organization and analysis in Excel.

1. What would you do differently if you were to implement this module again?

I would run it in a larger area. I would most likely implement it in the lab portion of the class.