Implementation Plan and Teaching Notes

**Context for Use** (details about your course)

Instructor: Surya Kumar Maharjan

Department: Silviculture and Forest Biology  
Audience Level: **Undergraduate**

Undergraduates: **Majors**

Instructional Setting: **Lecture & Exercise**

Number of Students: 37 + 38

Dates of implementation: 22nd Mar 2023

**OCELOTS Module Title**: Healing the scars: Tropical rainforest carbon cycling – Does it matter which tree species you plant?  
**Link to Module on Gala**: https://www.learngala.com/cases/tropical-rainforest-carbon-cycling

**Learning Goals of Module:**

* Describe the processes that influence global carbon cycling

**Pedagogical techniques used**:

* Lecture

**Adaptations made or parts used if the entire module was not used**

* I used only parts of the module. I used chapter 2: Plant- to global-level carbon cycling & Chapter 10: Photosynthesis and Respiration (An exercise). I used the aforementioned Chapters of the module to introduce the concept of Ecosystem productivity: gross and net primary production to the BSc Forestry II year II semester students during their Forest Ecology class. First, I showed my class the animation video in Chapter 2. Then, I asked them the questions in the exercise in the Chapter 10, one at a time. Students were asked to pick the correct answer and explain why they think that the answer they picked is the correct. Links to the supplementary powerpoints were provided as additional reading materials.

**Supplemental materials created**

* Not applicable.

**Assessments**

* Two questions from the exercise in Chapter 10: Photosynthesis and Respiration (An exercise) were used as part of 15 marks internal assessment.

**Changes Made (If any)**

* Not applicable.

**Teaching Notes**

1. Overall, how did your implementation go?
   1. What went well and why?
   2. What went wrong and why?

Normally, I used to provide my class the links to the presentations or the literature to read. But this time it was an animation video. The class found the video short and simple yet very informative and clear.

1. What was the prep like?
   1. How much time went into prep?
   2. Did you have to do any prep ahead of implementation?

I took time to go through the module myself before implementation. As the contents of the Chapters match exactly my requirements, I didn’t have to spend extra time in preparation.

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

The students were glad to learn about “Gala” and the interesting modules available in the platform. About the chapters, students really liked the combination of a video and an exercise.

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

It would have been lot easier if the overview page of the module could also include some information on the recommended setting for the implementation of module (class room lecture/ group work/ field settings) and time requirements for the implementation of the module (number of lecture hours or so on).

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

In the beginning, I was planning to use this module to teach my class how to calculate personal carbon footprint. However, I could not do it this semester because the course where we will be discussing how do human activities contribute to climate change is delayed for this semester. So, I am planning to do that in the coming semester.

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

Next semester, I will try to take my class through simulation model as well, which I could not do this semester because of time pressure.

1. How does this activity fit in your overall course curriculum?

As I mentioned earlier, I used the aforementioned Chapters of the module to introduce the concept of Ecosystem productivity: gross and net primary production, which is a part of Unit 2: Ecosystem under the subject (BSc) Forest Ecology.

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

In my institute, we are used to having one mid-term internal assessment per subject per semester. But the students appreciated the idea of combining the lesson with a quick follow-up exercise as is done in this module. So, from now on, I will try to replicate this in my other classes as well.

1. Is there anything else you would like to make note of?

Not at the moment.