## Teaching Notes – Intro to BIOMAAP Student Math Anxiety Overview

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**Course Information**

Department: Biology

Course: BIOL305 Ecology

Level: **Upper Undergraduate**

Course type: **Lecture**

Students: **Majors**

Number of Students: 43

**Module Information**

Original Module Name: Intro to BIOMAAP – Student Math Anxiety Overview

Link to Original: https://qubeshub.org/qubesresources/publications/697/1

**Teaching Notes**

I implemented the Math Anxiety Overview in week 5 of the term, right before I introduced exponential growth population models. Up to this point, most of the models we covered had been conceptual, and students always get uncomfortable when they start seeing equations. I hoped to alleviate some of this anxiety before entering the population and community ecology models. I also figured they were due for a refresher on growth mindset by this point in the term (which I had introduced on the first class).

I ended up using much of the Math Anxiety Overview powerpoint – including the data on brain activity, the 18\*5 metacognition activity, and the What Next? slides. Students responded really well. They loved the 18\*5 activity and seemed genuinely surprised at the different paths people can take to get to the “right” answer.

I honestly believe that I have two students who kept pushing through the differential equations portion of the class *because* I integrated the growth mindset and math anxiety materials in my course. It never got easy for them (and they didn’t get As), but they didn’t give up. I will use these materials (both Growth Mindset and Math Anxiety) in my courses in the future.

I don’t think I would modify these materials at all before using them again. They worked. This was an insane term for me, but I was still able to integrate the existing BIOMAAP materials into my existing course without too much extra work on my part. And the students benefited. Win/win.