Introduction to Growth Mindset (Version 1.0)
By Arietta Fleming-Davies and Jeremy M Wojdak

Module Description:
A great deal of evidence suggests that human brains are remarkably plastic, even among adults, and that learning new skills or information changes the structure of the brain. This module introduces students to the research supporting ‘growth mindset,’ the idea that you can increase your brainpower and ability through effort, and contrasts it with ‘fixed mindset,’ the idea that people are inherently good or bad at certain tasks, and there is little to be done about it.

The activity asks students to categorize example statements as either ‘growth’ or ‘fixed’ mindsets, and then complete a journaling exercise based on experiences in their own lives. The activity can be completed entirely out of class, or introduced in-class and the exercise assigned as homework.

Teaching Setting:
This module was original designed for beginning biology students, but could be used in any course where comfort with quantitative skills is important. It is recommended that this module be implemented early in the course to help students who consider themselves inherently ‘bad’ at math to realize that their understanding of mathematics can grow with practice over time.

QUBES Citation:
Related Materials and Opportunities:

This material is also available as an online R Shiny app that students run directly on the QUBES website.

![Image of user interface for Cultivating Your Growth Mindset R Shiny app.](image)

View of the user interface for the Cultivating Your Growth Mindset R Shiny app.

**Launch the Cultivating Your Growth Mindset R Shiny app.** You must be logged into your QUBES account to launch the app.

QUBES has a server to host Shiny apps. [Click here](#) for instructions on how to submit your Shiny app to QUBES!

This module was developed by [Biology Student Math Attitudes and Anxiety Program (BIOMAAP)](#). BIOMAAP aims to help undergraduate biology majors improve their attitudes and decrease their anxiety towards mathematics, and thus to help faculty teach quantitative topics in biology. BIOMAAP will be running a [Faculty Mentoring Network](#) in Spring 2019. If you would like to receive an email when applications are open, [join the BIOMAAP group](#).

[Browse all BIOMAAP resources](#).