

1. How can the ABC (scaffolded) structure EDDIE modules impact student learning?

Hands-on aspect of student activity...learning by doing

It is not overwhelming and intimidating.

Incrementally gives students freedom to think

Continuously builds on fundamentals

Moves from theoretical to practical

Starts with direct information (looking for a specific answer, simplified, condensed)

Follows on with higher level thinking

A is a good introduction to the dataset and the tool that will be used

B is more independent

C open discussion comparing ideas and results, where can we go from there

Building engagement, connecting ideas through the course of the module

Learning objectives are right up-front and helpful for both students and instructors

Build confidence with A—need to make sure the goals/skills here are truly at the right level for the students so it's an easy but engaged way for students to work with the data and the tool

2. How would using Statistical Vignettes impact student learning?

It would ensure all students in class are at the same learning level

More engaging than other approaches, holds attention well
Can learning goal that is short

Focuses on a specific method so students know exactly what strategies to use to answer a question

Might help inspire students to want to learn more statistics because they can see its application

Builds confidence, makes methods more approachable

Provides an opportunity for people who are more visual in their learning, more engaging, material for people with different learning styles

Fun characters and engaging, low-stress scenarios illustrated in very intuitive ways (sale of ice cream and hot temperatures being related)

3. How could using Statistical Vignettes and modules impact the instructor experience?

Statistical Vignettes can provide a primer that allows for an instructor to utilize a concept that they are not completely familiar with.

The short activity can be incorporated easily into a classroom setting

With the modules, we can use the rubric to construct activities with data that is not currently represented in existing modules

Get quick feedback from students and their skill/comfort level to assess how quickly to move forward

Makes teaching easier by breaking down complex topics into bite size exercises

Provides a framework for integrating quantitative lessons into the course

4. What challenges do you anticipate implementing an EDDIE module?

Initially, orientation for the students to familiarize themselves with the tools and strategies being used (module A!)

Helping students know and use other resources to troubleshoot code after they leave the classroom

Students' self-perception as "not math people" can lead to disengagement (big problem!)

Making sure students have access to tools (licenses, downloading programs before they come to class) (big reason to consider open tools)

The long chunks of texts may intimidate students, and some students that are not well-versed with the Statistics may feel isolated.

Making sure students understand the content context of the different modules/case (in our example, a student who has no problem with linear regressions but who doesn't understand the connection between CO₂ and warming)

Helping students follow specific steps/using labels and units consistently so their answers are complete (rubric!)

Particularly in group exercises, how do we ensure all students are engaging, participating, and understanding?

Students need to be able to read and understand the data on their own in some context

Dead links may appear, data hard to access

5. What would you teach or do with your class before using an EDDIE module in a course?

Make sure students have the relevant programs downloaded before coming to class

Downloaded the dataset they need to use

Read the material beforehand to be familiar

Insert a short lecture on how to program instead of using Excel; Alternatively, a module for getting started in R/Python/Excel before getting started on the stat modules

The mechanics of making a figure; what a good scientific figure looks like; how to use a figure

Assessments to guide students in preparing for class

Go back to Slide 1 😊