Model building assignment

Due date: ---------

As we have already discussed, models are a crucial tool with which we understand the world, not least the way in which its climate is changing. While many claim that models generally have an impenetrable level of complexity (often pointing to the Integrated Assessment Models (IAMs) that we discussed), they need not be and are in fact useful in a wide variety of contexts.

In this exercise, you and your group-mates will build a model of success at university into which each individual student in the class can (and will) then feed information. The steps:

1. *Choose your items*

List all the considerations that might help you understand if a student will success in university

2. *Create a scoring system*

Pick a metric that will allow you to combine these considerations. Once you have a long list and a metric, build your model!

3. *Validation*

Students will 'run' each model, inputting their own data. Think about: how, if at all, can you use the results to validate your model?

N.B. Participation in this exercise will depend on students' participation in previous classes, as we will discuss how to choose items, create a scoring system, and combine all this into a model beforehand.

Model submission

All groups must have submitted their models to the Dropbox on LEARN by --------. All late submissions will cost group members 5% on the assignment grade. I will collect the models and prepare them for distribution to the class.

Grading

While this assignment does not have an independent line in the grading scheme of the course, I will use it to assign each of you an initial participation grade in the course. That grade will vary as the course progresses, depending on your participation and engagement with class material. Your grade in this assignment depends 3 factors:

1. Active and well-prepared participation in class discussions and group work;
2. Genuine effort to build a good quality model;
3. Contribution to the class' effort to understand the relevant issues and questions (for examples, see below).

Debrief questions (a few examples)

First, as always: what are you puzzled/surprised/not surprised about?

Results

How useful are your results? Do you feel that this is an objective prediction or an entirely subjective judgement (or something else?)?

Can you compare your results to your neighbours?

What explain the differences between your results across the models?

How are you interpreting your results? How can you compare each model's result for you?

How would you adjust your, or another group's, model?

Building the model

How did you come up with your basic metric? Is it consistent across items and modules?

Where did you aim for objectivity? How did you go about doing that?

Success

Did you ask yourself: what if we did all these things? If we did all these things, would be succeed?

Did you ask yourself: how do get to a successful endpoint at university?