

Team Based Learning 2

Questions Validation

(fire drill might not be same as real situation)

we can do experiment. even if we aren't set fire, we can still collect data. We can set fire drill to collect how people move

Validation is regarded to be the most difficult part of ABMs. Which step in the validation process is **the most difficult part** of validating the **Evacuation model**? You can select multiple answers. *model is toward to descriptive (pattern) / does spatial (building) matter?*

a. **Input validation**, as we cannot set a building to fire to collect data that is correct/valid. *can be many behaviors.*

~~b. **Process validation**, as we do not know what people in a building **are doing** at the time an evacuation starts.~~ *main focus isn't what people doing at time start*

c. **Descriptive validation**, as there are no patterns that we can replicate.

d. **Predictive validation**, as there is no independent data available *model isn't toward prediction thing.*

To check the validity of a model, you should know the purpose of the model.
Which of the statements below about the Wolf-Sheep-Grass model is correct?

- a. This model does not have a purpose, and therefore, it cannot be validated.
- ✓ b. The purpose of this model is to show that wolf-sheep dynamics is a complex system. Therefore, descriptive output validation is the most important aspect of the validation process.
- c. The purpose of this model is to predict how many sheep can survive with a given number of wolves in a neighborhood. Therefore, predictive output validation is the most important aspect of the validation process.
- d. The problem with this model is that not all processes, like flocking of sheep, are implemented, and therefore, the model cannot be validated.

In the Living Textbook, you find the concept “validation” as one of the steps in the ABM design steps. Under challenges, various issues are listed that might apply to the evacuation model. Select all correct statements below.

- a. The stochastic nature
 - b. Predictive versus retrodictive capability
 - c. Data Quality
 - d. Path Dependency
- mostly, we predict the things at the period that its happen
not applicable for evacuation model
- data that we collect during fire drill
vs. real-situation

Ans . a, c, d

