

Welcome to ESD.864 Quiz 2.

Remember: the quizzes are a metric for the teaching staff only. We use aggregate scores to help us find areas to emphasize.

We do not count your score toward your final grade. You receive points only for completing and grading these quizzes.

Thank you for participating.

1. Please type your full name.

2. Name two potential policy applications for models.

Agenda-setting; Screening and assessment; Scenario evaluation; Improving understanding; Guiding negotiations; Decision-making tools; Informing the public

3. True or False:

- a) Epistemic uncertainty can be quantified with a probability density function. [FALSE]
- b) Model verification measures the correspondence between a computerized model and reality. [FALSE]
- c) A possible task for model validation is comparison with real-world data. [TRUE]
- d) Weather forecasting models have improved over the past 30 years. [TRUE]
- e) Murphy's concept of "Type 2 goodness" refers to value, or the incremental benefits of forecasts to users. [FALSE]

4. Classify the following as a definition of validation or not.

- a) Characterization of numerical approximation errors associated with a simulation. [NO, this is VERIFICATION]
- b) Assessment of model accuracy by comparing with experimental measurements. [YES, VALIDATION]
- c) The process of ensuring that a model that does not contain known, detectable flaws. [YES, VALIDATION]
- d) Ensuring that the code or model is an accurate representation of physical reality. [YES and NO both acceptable answers...YES in that this is a common definition, NO if you believe Oreskes that it is impossible!]

5. Definitions of credibility, salience, legitimacy. Given a user of a particular assessment, would the following statements address their attributions of credibility, salience or legitimacy?

- a) I don't think the statistical analysis was done correctly. [CREDIBILITY]
- b) I think the assessment is biased. [LEGITIMACY]
- c) The assessment provides information useful for a decision I have to make soon. [SALIENCE]
- d) The assessment addresses issues that aren't under my control. [SALIENCE]

6. Which of the following strategies may increase credibility to a particular user? (True/False)
- a) Instituting a peer review process [TRUE]
 - b) Inviting stakeholders to participate [FALSE: most likely legitimacy]
 - c) Instituting a strict separation between “science” and “policy” [TRUE: in most cases, since this tends to increase scientific credibility where a user thinks “science” has not been influenced]
 - d) Increasing transparency of the assessment process [TRUE]

7. Which of the following strategies may increase salience to a particular stakeholder?
(True/False)

- a) Instituting a peer review process [FALSE]
- b) Inviting stakeholders to participate [TRUE]
- c) Instituting a strict separation between “science” and “policy” [FALSE]
- d) Increasing transparency of the assessment process [FALSE; more likely credibility and/or legitimacy]

8. Based on week 2:

What do you want to see more of in class?

What do you want to change?



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