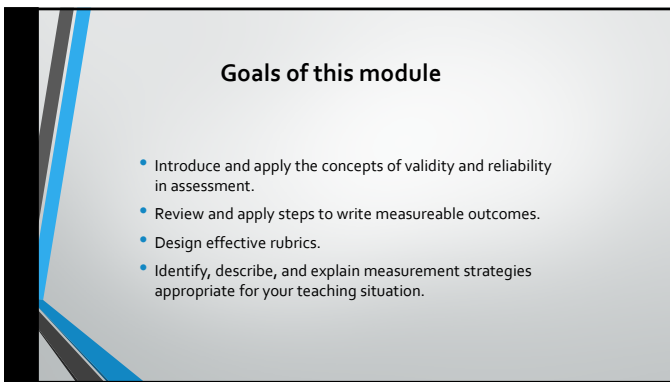


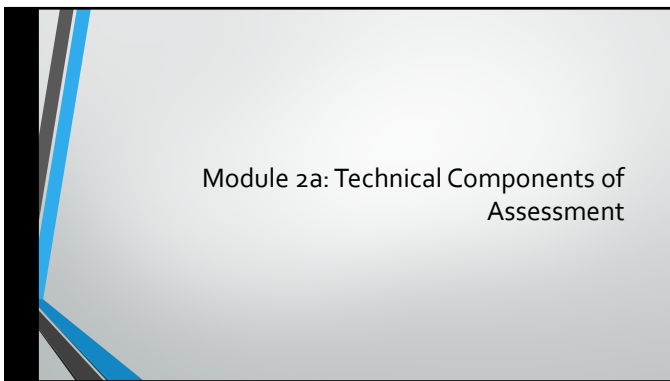
Module 2:
Principles of Assessment and
Rubric Design

Passport to Great Teaching
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Goals of this module

- Introduce and apply the concepts of validity and reliability in assessment.
- Review and apply steps to write measureable outcomes.
- Design effective rubrics.
- Identify, describe, and explain measurement strategies appropriate for your teaching situation.



Module 2a: Technical Components of
Assessment

The "BIG V" in Assessment

Big "V" = Validity

Assessments are created for a specific purpose. Validity has to do with the inferences we make based on the results of an assessment.

Validity is determined by the evidence we have that can substantiate the claims we make about what our assessment results tell us.

Threats to Validity

Construct underrepresentation - when only a portion of the targeted construct is assessed which threatens the generalizability of the score inferences to the target construct. If an assessment does not evoke the intended skills or ways of responding that are essential to the targeted construct, the validity of score inferences are jeopardized due to construct underrepresentation.

An example: an algebra instructor who assesses the *construct* of modeling numerical expressions from written problems but does not account for the effect of reading skill *underrepresents* the construct in the assessment instrument being used

Threats to Validity

Construct irrelevance - occurs when in addition to assessing the intended constructs one or more unintended constructs is being assessed, resulting in artificially inflated or deflated scores and as a result, hindering the validity of score inferences.

An example: the presentation mode of an assessment can affect results if students are unfamiliar with it, for example, if the assessment is presented online but students do not know how to work in the online format, the scores will be artificially affected as a result

Reliability

Reliability has to do with *consistency of measurement*

“Perfect reliability” is a theoretical possibility but not probable; if you took *perfectly reliable* test or assessment an **infinite number of times**, you would *always* get the same result

That doesn't happen!

There are many statistics that are used to determine reliability

In practice, teachers can improve reliability through consistent implementation and measurement

Pause to Think

Select an assessment you currently administer. Describe this assessment, and:

- Explain how you ensure validity and avoid threats to validity.
- Explain the techniques you apply to raise reliability of your results.
