The Interpretive Exercise
What learning outcomes does the Interpretive Exercise measure

- Application of principles
- Interpretation of relationships
- Recognizing inferences
- Generating hypotheses
- Formulating conclusions
- Recognizing assumptions
- Designing experimental procedures
- Evaluating arguments
- Interpreting charts, tables, figures, cartoons
What are parts of an interpretive exercise?

The introductory material

- Can be a
  - Picture
  - Cartoon
  - Map
  - Table
  - Graph
  - Prose
  - Poetry

The question(s) – usually objective-type questions – multiple choice, alternative choice
Why interpretive exercise?

Best used for higher level thinking (but also can be used for basic reading comprehension)

Objectives like interpret, infer, summarize, identify central idea, predict, evaluate, conclude, etc.
Advantages & Disadvantages of Interpretive exercises

**Advantages**
- Allows us to measure ability to interpret tables, graphs, pictures
- Allows us to measure more complex learning outcomes
- Because there is one introductory materials, many questions can be asked – assessing both breadth and depth

**Disadvantages**
- These items are difficult to construct
- Often, there is heavy emphasis on reading skill
- It does not measure “real” problem solving – where you actually have to re-state the question
- Use of objective items may restrict assessment of learning to recognition level
Advantages & Disadvantages of Interpretive exercises

**Advantages**
- Removes the influence of irrelevant factual information (e.g., knowledge of football in calculating math problems) – the intro materials provides the knowledge necessary for every one to answer the question(s).
- More structured than Performance Based Assessment

**Disadvantages**
- For these reasons and more, this type of assessment is not much used
What makes an interpretive exercise valid?

- The introductory material should be novel.
- The answer should **not** be found directly in the introductory material (unless you are testing lower level thinking).
- Introductory material can be followed by multiple choice, T/F, matching, key-type, or even essay (though the authors do not state that).
What makes an interpretive exercise valid?

Some rules:

- Select introductory material that is relevant to the learning outcomes (e.g., “distinguish between valid and invalid outcomes” has introductory material that is different for Science vs. History)
- Select introductory material that is new/novel (e.g., in textbooks not adopted by the school/district)
- Keep introductory material brief and readable
- Construct test items that call forth the type of performance specified in the learning outcome (make sure you do not ask questions that are directly answered by the introductory material)
- Follow all the rules of effective item writing
What makes an interpretive exercise valid?

Some rules:

- The subject matter/introductory material should be appropriate to the students’ curricular experience and reading level (e.g., they should be familiar with the types of graphs shown, or the subject/topic on which the reading material is included).

- Make sure to revise any introductory material that you pick (for clarity, conciseness, and greater interpretive value) – and revise the questions (this may require you to revise the intro material again!)

- Make the number of test items roughly proportional to the length of the introductory material.
What makes an interpretive exercise valid?

Some rules:

- If using key-type items, use categories that are homogeneous and mutually exclusive.
- In using key-type items, develop standard key categories where applicable.