Topics

- Item writing
  - Multiple choice
  - Multiple Select (reduced set matching)
- Embedded items

Multiple choice: parts of

Who is the most constructivist professor in the INST department?

- a) Andrew Walker
- b) Brett Shelton
- c) David Wiley
- d) Deepak Subramony
- e) Mimi Recker
- f) Sheri Haderlie

Multiple choice

The good

- Variety of learning targets
- Minimize the BS response
- Does not assess writing abilities
- Guessing is more difficult
- Diagnostic abilities
- What's missing from this list?

Multiple choice

The bad:

- Little self-expression
- Limited to trivia or factual knowledge
- Punishes bright students
- Canonized knowledge
- Forces drill-and-practice

Multiple choice

Recommendations (stem)

- Write as direct questions
  - (Haladyna & Downing, 1989a)
- Avoid incomplete sentences
- Keep it simple (non-technical)
- For definitions, place term in stem
- Drop the window dressing
- Do not use negatives
- Avoid examinee opinion
- Paraphrased (not from the textbook)
- Separate items

Multiple choice

Recommendations (leaves)

- 3-5 rule
- Homogenize
- Place repeated words/phrases in stem
- Consistent punctuation & grammar w/ stem
- Arrange in a list that is logical or meaningful
- Distinct leafs
- Avoid true/false leafs
- Avoid “none of the above/all of the above”
- Overly plausible distractors
Multiple choice examples

Which of the following three-dimensional shapes is best suited to traversing a smooth surface in a linear fashion?

a) cube
b) pyramid
c) ruler
d) point
e) cylinder*

Multiple choice examples

If you want students to perform a calculation in a test the best thing to use is:

a) A fixed-response item.
b) A multiple choice item.
c) A matching item.
d) A fill-in-the-blank item.

g) cylinder*

Multiple choice examples

In your opinion, who is the most constructivist professor in the INST department?

a) Andrew Walker
b) Brett Shelton
c) David Wiley
d) Deepak Subramony*
e) Mimi Recker
f) Sheri Haderlie

g) cylinder*

Matching: parts of

In column A are statements about our history; in column B names places and dates, match the letter of the appropriate name, place, or date with the appropriate line next to column A.

| 1. First president of the United States | A. Columbus |
| 2. Discoverer of America | B. George Washington |
| 3. Year America was discovered | C. Washington, D.C. |
| 4. Beginning of the Revolutionary War | D. 1492 |
| 5. Present capital of the United States | E. 1776 |

g) cylinder*

Matching Recommendations

- Match with learning targets/objectives
- Match assessment plan
- Homogenous sets of premises/responses
- Clear directions
- Every response is a plausible option for every premise
- 5-10 rule
- No perfect matching (# responses > # premises)
- Each premise longer than each response
- Logically arranged responses
- Numbered premises/lettered responses

g) cylinder*
### Matching examples

In column A are statements about our history, in column B names places and dates, match the letter of the appropriate name, place, or date with the appropriate line next to column A.

<p>| | |</p>
<table>
<thead>
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### Embedded items

- **Goal is to check understanding**
  - Timing (formative)
- **Do not grade**
  - Allow for multiple attempts
- **Feedback**
  - Correct response (prompt to continue)
  - Recursive corrective feedback (try again)
  - Invalid response (re-prompt)

### What we did not cover

- Assessment blueprints and assessment plans
- Validity/reliability of items
  - Content validity
  - Intra-item reliability
  - Item analysis
- Other item types: Short answer, essay, project-based.