Peer Instruction Question Writing One Page Primer

STEP 1. Identify the concepts the question should address

- Focus on core concepts, common clinical problems
- Avoid recall assessment of miniscule & trivial facts (or) overly complex questions
- Start with foundational knowledge & build to application

STEP 2. Alignment with objectives

- Specify PI question alignment with session/weekly/course learning objectives
- Indicate alignment to the preparatory assignment material (reading, video, online)

STEP 3. Construct question stem = Vignette + Question

- **Create vignette – clinical or experimental**

Clinical vignette has 5-6 elements

- o Patient age & gender (if relevant)
- o Chief complaint/ reason for seeking care (symptom, need)
- o Duration of symptom(s) (& change in nature)
- o History (personal, family &/or social)
- o Physical findings (vital signs first)
- o Results of diagnostic labs or studies

Other considerations on patient characteristics (disability, SES, race, ethnicity)

- - Do not include as patient identifier (first line)
- - Where relevant include as History (social context, medical history)
- - Avoid stereotypes
- **Ask a clear question**
- o Test-taker should be able to answer without viewing the answer options
- o Avoid any negatively phrased lead-ins (i.e., NOT, EXCEPT, LEAST LIKELY)
- o No "you" (2nd person)

STEP 4. Create options with one single best answer

- Offer as many options (distractors) as feasible/ plausible (usually 4-5)
- All options should be short and similar
- Item stem & all options should use same grammar
- List options in alphabetical or numerical order
- Avoid "none of the above" option
- One correct answer is identified

CLUES & FLAWS TO AVOID

- **Absolutes** – always, never, must, all
- **Convergence** – correct answer has most elements in common with other options
- **Clanging** – word repetition/association in question stem & correct answer
- **Complicated, detailed & lengthy** stem or options
- **Enemies** – early question has answer to later question
- **Exhaustive options** – all possible options listed may clue to option subset
- **Grammar/syntax** disagreement between question stem & options
- **Logical** – options have relationship to stem; option set has implicit order
- **Negative lead-ins** - except, not
- **"None of the above" option**
- **Overlapping options** – option (numeric ranges, etc.) is subset of another option
- **Vague frequency terms** – about, often, seldom, usually

STEP 5. Quality check!

- ❑ Focuses on important concept (Step 1)
- ❑ Aligns to preparatory assignment & objective(s) (Step 2)
- ❑ Able to answer without viewing options (Step 3)
- ❑ No clues/flaws in question stem & options (Step 4)
- ❑ One single best answer (Step 4)
- ❑ Will 80% or more of learners to get correct on 1st poll? May be too easy (mastery item?)

REFERENCES

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