

## Research-Based Best Practices to Writing Multiple Choice Questions

### The Stem

- Focused**  
Question is **detailed** but contains **no extraneous information** to the objective being assessed.
- Complete Question**  
The stem is in the form of a **complete question** rather than an open-ended fill in the blank.
- Think of Your SLO**  
Does this question assess the **student learning objective**? Are **higher-order thinking skills** required? Did I use **scenarios** and real-world application where possible?
- Be Positive**  
The question is phrased as a **positive identification** rather than an elimination question.

### The Alternatives

- Same Length**  
Alternatives are **homogenous** and **consistent**.
- Plausible**  
All alternatives could be a realistic answer.
- Avoid *all* and *none of the above***  
By including these terms, we make it easier for a student to correctly guess without actually knowing the content.
- 3-4 Items**  
Studies show **3-4 alternatives** are optimal for score reliability.
- Logical Order**  
**Randomize** alternative order when you can, but follow **logical order** when alternatives call for it (e.g. listing numbers in ascending order, dates sequentially, or terms alphabetically).
- Proofread!**  
Then, proofread again. Don't let grammatical or typing errors affect your assessment scores.

### Example Question

Mary's breakfast consists of two eggs fried in canola oil, half an orange, and a bagel (made from unenriched flour) with cream cheese. Which vitamin or mineral is most abundant in the breakfast?

A. Folate  
B. Vitamin K  
C. Calcium  
D. Vitamin D

← The **detailed, specific scenario** requires students to analyze and apply information.

← The question is stated positively with **no fill-in-the-blank**.

← Alternatives are homogenous in **type, length, and amount of detail**.



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