Checklist Multiple Choice Items

General criteria

- Each item is specific to one intended learning outcome and is based on one type of content and cognitive demand.
- **Use new material** to elicit higher-level thinking.
- Test **important content**, being neither overly specific nor overly general.
- Items are **neither trick-questions** (or unnecessarily complicated) nor do they test trivial facts.
- Items are **independent** from other items, and do not give any cues that could help in solving other items of the same exam.
- **Avoid opinions** unless qualified.
- **Simple language**: Linguistic complexity is kept appropriate to the group being tested. Items are never more complex linguistically than necessary in order to be precise.

What is important in formulating the stem?

The stem…

- Is always formulated **positively**. When negations cannot be avoided, they are emphasized appropriately (e.g. using CAPITALS or underline).
- States the **central idea** clearly and concisely.
- Does not contain **any superfluous information**, but only contains the information necessary to answer the question correctly.
- Can be **answered without seeing the options**.

What is important in formulating the options?

Formulate **the correct/best option** first (stem). Then formulate your distractors (plausible false answers).

All options:

- Are **plausible**. Three options are usually sufficient.
- Are sorted in a **random order.** Where applicable, items may be sorted in a **logical order** (e.g. numbers from low to high).
- Are **mutually exclusive**.
- Are **short** (the central idea is formulated in the stem).
- **Avoid negative words** such as NOT, and emphasize them appropriately when they cannot be avoided.
- **Avoid giving cues** to the correct option:
  - The length of options is about equal.
  - Avoid words like “always” and “never”.
  - Keep options **homogeneous in content and grammatical structure**.
  - All options adequately **match the stem** in their grammar.
- Only use **technical terms** where necessary to be precise, and avoid them otherwise.
- Do not contain statements such as „A&B“, „none of the above“, „ all of the above“.
- **Avoid repeating text** sequences (unless this makes the item unnecessarily difficult to read).

The right answer (the key):

- Is **objectively and unambiguously the best answer** (no discussion between experts) as well as **technically correct**. If this is not possible, please refer to relevant theories, experts, etc. („According to theory xy...“, „According to Kant...“, etc.)
- Should **not be placed mainly under C or D** (best is to make a randomized distribution, for example throwing a dice ☺, or have a computer randomize the answers).

Distractors:

- Are **equally plausible to laypersons** as the correct answer.
  Please put yourself in the situation of the candidate: which thinking errors could he/she make in his/her learning situation? Typical errors and common misconceptions make for good distractors.
- Are **clearly distinguishable from the right/best answer (key) to experts**.
- **Do not contain cues** to the correct option.

From:

R. Krebs, Anleitung zur Herstellung von MC-Fragen und MC-Prüfungen für die ärztliche Ausbildung (Institut für Medizinische Lehre IML, Bern).
Download: www.iml.unibe.ch

C. Loijens, Checklist closed questions (Tilburg University, the Netherlands, 2010).

T.M. Haladyna & M. Rodriguez, Developing and Validating Test Items (Taylor & Francis 2013).