

### **Multiple-choice questions in theory and practice**

A multiple-choice question is a question in which students are asked to select one alternative from a given list of alternatives in response to a 'question stem'. The other alternatives are called distractors.

Multiple-choice questions can cover different types of activities and involve very different skills. They can be set at different cognitive levels. Applying Bloom's Taxonomy, teachers can design questions that require recalling facts at the lowest level; test the students' understanding of facts, procedures; challenge the ability to apply factual knowledge to given situations; and, at the highest level, require deducing and evaluating. Multiple-choice questions can be focused on one word, a structure, an expression, a clause or a sentence, a paragraph, the whole text.

To create good questions it is important to state the problem clearly, avoiding vague generalizations and irrelevant information. Students should know exactly what is expected of them. The stem should contain most of the wording in order to reduce the reading load. It is advisable not to use negative stems. If this cannot be done, the negative words should always be highlighted by underlining or capitalization. The alternatives should be equally plausible and internally consistent. Only one of them should be unambiguously correct. The answer and distractors should all be of approximately the same length. The position of the answer should vary. One should avoid an option 'All of the above'. 'None of the above' variant should be used with care as it gives no diagnostics on misconceptions. The teacher must be careful not to give a clue in the stem (*e.g.* a/an).

Whatever the type of multiple-choice question used, it is essential that the students do not consider them as a guessing game.