

Assessment Checklist

Before assessment: design of the instrument

- 1) Does the instrument assess at least one of the learning outcomes/objectives? Is it valid?
Some possible sub-questions:
 - (a) What specific concept(s) do you think your question is designed to assess?
 - (b) Does it assess conceptual understanding?
 - (c) What cognitive skills does it assess?
 - (d) Does it allow for a range of scientifically correct (creative) answers?
- 2) Is the instrument compatible with the type of knowledge or skill being assessed (i.e. use appropriate forms of assessments depending on what is being assessed)?
- 3) If the question includes a diagram:
 - (a) Do you think the diagram and its constituent symbolism is clear and not too complex for the student to understand?
 - (b) Do you think the diagram will help the student to answer the question?
- 4) Do students have the necessary prior knowledge and skills to answer the question?
- 5) Have students had practice at answering this type of instrument?
- 6) Will students understand the expectations and nature of the task? (i.e. do they understand the question? Is the language clear and unambiguous?) Do they understand the criteria that will be used to assess/grade their answers?
- 7) Is the standard of the assessment appropriate for what will be assessed (e.g. assessment for mastery of concepts, skills, principles; for competence regarding use of equipment; and, for adequate proficiency regarding general course information)?
- 8) Is there a rubric that will ensure that the answers can be fairly and reliably graded?

After assessment: analysis of student responses

- 1) Was the instrument reliable i.e. what was its coefficient of reliability?
- 2) Was the standard of the assessment appropriate for the level of study? Did you do an item analysis to identify items that may be too easy or difficult? Did most items discriminate between the top and bottom third of the class?
- 3) Did it reveal evidence of student difficulties and misconceptions?
- 4) Did you give qualitative feedback to students regarding their level of understanding and any difficulties they showed (i.e. not just grades obtained)?

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Overall evaluation of the assessment plan for the course

- 1) Have all the outcomes/objectives of the course as a whole been adequately assessed?
- 2) Was any one of the outcomes/objectives over-assessed at the expense of some of the others?
- 3) Does the assessment program as a whole comprise a sufficient range of assessment techniques or types? Does this range include assessing the same major concepts in different ways, and cater to differential strengths of students?

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