

Conducting Online Open–Book Examinations

Guidelines for Teachers



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Open-Book Examinations

With more and more Universities and Colleges adopting the Open-book examination system for assessing the learning outcomes of the students as a result of the pandemic situation, there is a need for teachers to understand the process of creating a meaningful Open-book exam. The Open-book examination is a method of testing, usually in an unsupervised environment, that allows students to use textbooks, class notes and other reference material to complete the exam. These exams are conducted to assess a range of competencies but are especially useful for evaluating a student's ability for higher order thinking over their ability to recall factual information.

Higher-order thinking refers to the different levels of knowledge according to Bloom's Taxonomy of Knowledge. Based on the learning outcomes and the type of course the teacher will be targeting different levels of discipline-specific knowledge and concepts with their open-book exam questions. Broadly, the questions of the open-book examination would conform to the Understanding, Applying, Analysing and Evaluating categories of the Bloom's Taxonomy as given in Figure 1.

Bloom's Taxonomy

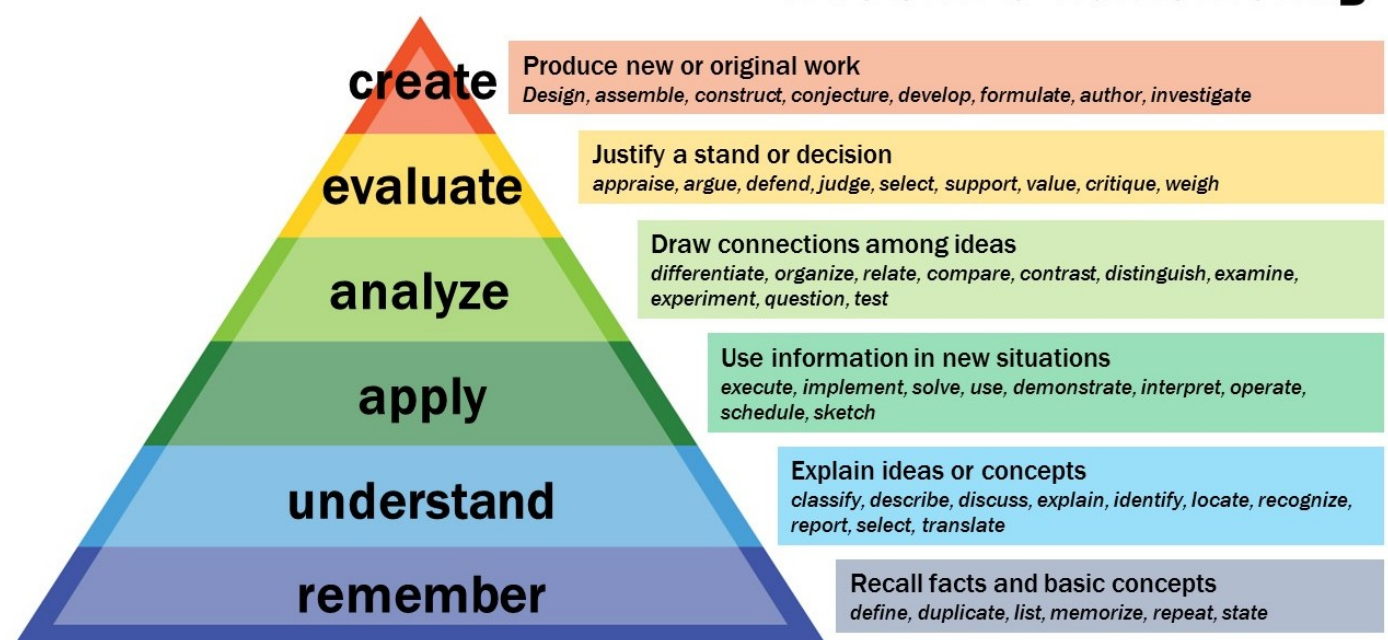


Figure 1. Bloom's Taxonomy Framework

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Higher Order Question Types

The teachers need to frame questions for the open-book examination that test the higher order thinking skills of the students. These include:

- Questions that target **application** and ask students to solve, use, examine, compare, contrast, relate, etc.
- Questions that target **analysis** and ask students to infer, explain, differentiate, distinguish, relate, etc.
- Questions that target **synthesis** and ask students to develop, organize, design, create, integrate, etc.
- Questions that target **evaluation** and ask students to judge, critique, justify, recommend, assess, etc.

Important Note: Students should be well accustomed to higher order question types and should be given mock tests prior to taking the exam.



Some Rules for Setting the Open-book Examination Question Paper

1. Clearly define the learning outcome you want to assess. In other words, your questions should measure the skills or knowledge that the students have acquired as part of your course.
2. Keep the number of questions realistic and in line with the time limit of your exam and the grading required.
3. Ask questions within a particular context, problem or situation. Ensure the context, problem or situation is clearly outlined for students.
4. Formulate a question that requires students to demonstrate their thinking related to the knowledge of their discipline / the course concepts. This will ensure they are using higher order thinking skills rather than simply locating and summarizing the relevant information to answer the question.
5. Construct the question so that the task is clearly defined for students. Avoid passive sentence structure and ambiguous phrasing.
6. Validate your questions by having a colleague review them for clarity and alignment with the intended assessment outcomes.
7. Create multiple variations per test where you can vary with order of the questions, names, numbers, situations, etc.
8. Don't make the questions so generic that students will be able to get the answers off the web for any part of it. Google some words of your question and see what will come up as a check beforehand.
9. Formulate questions that let students frame their own examples to explain something and come up with their own arguments.
10. For an Open-book question a teacher can expect a lot of different answers, hence, it is advised that teachers should prepare a model answer that can be used as a guide for assessing and grading the final answer.

Administering an Online Open-book Examination

1. Send instructions to students about how to prepare for an open-book exam well in advance (suggested materials for review, what to focus on, what kinds of responses will be expected, etc.).
2. Give students more time to complete the open-book exam than a traditional exam. Consider the time spent on finding the information and for writing up answers.
3. Have a clear grading criterion and let students know the same in advance.
4. Determine how you will administer and collect the exam. The students should know beforehand whether the exam shall be conducted using a learning management system (LMS) or an online educational tool like Google classroom etc.
5. It is important to determine the timing of the exam. It should be made clear beforehand if the exam will be made available only for the exact amount of time needed to complete it, or will the students be given a longer time period (e.g. a 12-hour window or 1-day, etc.). This will need to be configured in the LMS or the Google classroom platform etc through which the test is being administered.
6. Develop a mechanism or a process for checking for Plagiarism if the exam is being taken through a LMS.

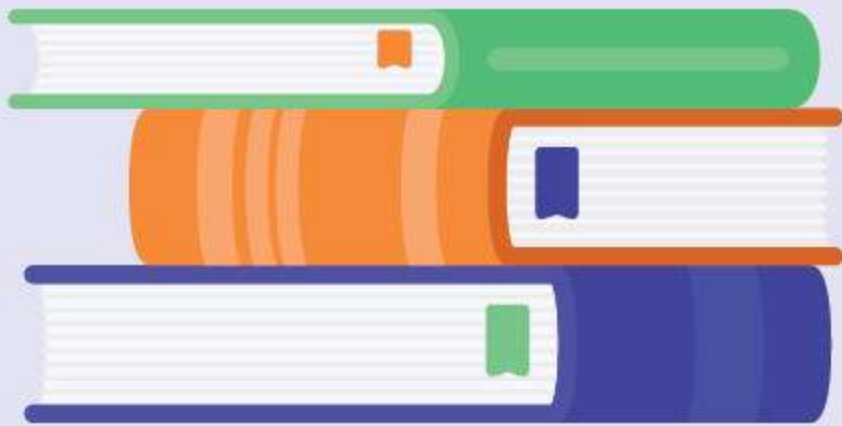
Advise for Teachers

The Grades resulting from an open-book examination should never automatically be considered as final grades. It is advised that every open-book examination be accompanied by an additional oral exam or an Online Quiz based on multiple choice questions to check the reliability of the results.

References

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The guidelines given in this publication would be helpful for all teachers who are creating Online Open-Book examinations for their students whether it be school, college or the university level. Considering the current situation due to Covid-19, all teachers are required to assess students in ways which help in achieving the course learning outcomes. Preparing and successfully conducting the Open-Book examinations will not only help in achieving the programme requirements but would also help in creating objective evidence for the assessment of students.