Vademecum for the remote assessment of students

Elements for determining remote evaluation modalities

Sylvestre Emmanuel, Van de Poël Jean-François
Carbonel Henrietta, Jullien Jean-Michel

Vademecum for Remote Assessment
April 2020

Translated from french by Carbonel Henrietta and Van de Poël Jean-François

Grafic design Julian Bader
foreword

This vademecum was written to help teachers make an informed choice when switching to remote assessment.

We present three main types of examination:

- Assignments
- Quizzes
- Oral examinations

For each type of examination, we suggest different options related to the learning outcomes you wish to assess. Depending on the type of examination, they may be carried out individually or in a group, synchronously or asynchronously.

For each type of assessment, we provide a general description including advantages, disadvantages and recommendations; practical guidelines for the preparation, administration and marking of the assessment; and a step-by-step timeline from the point of view of the student.

This guide is not intended to be comprehensive or prescriptive. Often, a combination of different types of examination will lead to a better evaluation of the learning outcomes.

In this document you will find:

- A section on **what questions you should be starting with**.
- A table summarising the main types of examination, examples of different assignments, the various settings and the level(s) of learning targeted.
- A detailed description of each general type of examination:
  - **Individual or collective assignment**
    - Asynchronous
  - **Individual assignment**
    - Synchronous
  - **Individual Quiz**
    - Asynchronous and Synchronous
  - **Individual or group oral examination**
    - Synchronous
start with the right questions

as a teacher ...

• Am I willing to change the modalities of my assessment?
• When will I have the most time to devote for the assessment (test set-up, test administration, marking)?

what learning level(s) and contexts do I want to assess...

• What level of learning will my students need to demonstrate (memorization, comprehension, application, analysis, evaluation, creation)?
• Given the learning levels I wish to measure, can I keep the type of assessment I had previously planned?
• What context will be examined (simulation of a professional situation, laboratory work, etc.)?

what level of security...

• Is this a very selective test?
• Does the assessment require a high level of security?

and what degree of preparation of my students...

• Does the type of examination require a special preparation such as a "mock exam" so that students understand how it works?
• Does the type of examination risk increasing the stress level of the students? Is it possible to reduce this stress level?
## Synoptic Table

**Assessment objects, conditions of achievement, and intended level(s) of learning**

<table>
<thead>
<tr>
<th>Main categories of examination</th>
<th>Types of assessment</th>
<th>Exam settings</th>
<th>Group work</th>
<th>Assessable levels of cognition (in reference to Bloom’s taxonomy*)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Individual work</td>
<td></td>
<td>Remember</td>
</tr>
<tr>
<td>Assignment</td>
<td>essay (handwritten or typed)</td>
<td>Synchronous</td>
<td>Asynchronous</td>
<td>Synchronous</td>
</tr>
<tr>
<td></td>
<td>case study</td>
<td>Synchronous</td>
<td>Asynchronous</td>
<td>Synchronous</td>
</tr>
<tr>
<td></td>
<td>multimedia presenta-tion (e.g. video)</td>
<td>Synchronous</td>
<td>Asynchronous</td>
<td>Synchronous</td>
</tr>
<tr>
<td></td>
<td>data processing and analysis</td>
<td>Synchronous</td>
<td>Asynchronous</td>
<td>Synchronous</td>
</tr>
<tr>
<td></td>
<td>clinical case</td>
<td>Synchronous</td>
<td>Asynchronous</td>
<td>Synchronous</td>
</tr>
<tr>
<td></td>
<td>problem resolution</td>
<td>Synchronous</td>
<td>Asynchronous</td>
<td>Synchronous</td>
</tr>
<tr>
<td></td>
<td>program (code)</td>
<td>Synchronous</td>
<td>Asynchronous</td>
<td>Synchronous</td>
</tr>
<tr>
<td></td>
<td>report</td>
<td>Synchronous</td>
<td>Asynchronous</td>
<td>Synchronous</td>
</tr>
<tr>
<td></td>
<td>poster</td>
<td>Synchronous</td>
<td>Asynchronous</td>
<td>Synchronous</td>
</tr>
<tr>
<td></td>
<td>portfolio, reflective essay</td>
<td>Synchronous</td>
<td>Asynchronous</td>
<td>Synchronous</td>
</tr>
<tr>
<td></td>
<td>dissertation</td>
<td>Synchronous</td>
<td>Asynchronous</td>
<td>Synchronous</td>
</tr>
<tr>
<td>Oral examination</td>
<td>presentation</td>
<td>Synchronous</td>
<td>Asynchronous</td>
<td>Synchronous</td>
</tr>
<tr>
<td></td>
<td>debate</td>
<td>Synchronous</td>
<td>Asynchronous</td>
<td>Synchronous</td>
</tr>
<tr>
<td></td>
<td>défense de rapport, compte rendu</td>
<td>Synchronous</td>
<td>Asynchronous</td>
<td>Synchronous</td>
</tr>
<tr>
<td></td>
<td>séance de poster</td>
<td>Synchronous</td>
<td>Asynchronous</td>
<td>Synchronous</td>
</tr>
<tr>
<td></td>
<td>jeu de rôle</td>
<td>Synchronous</td>
<td>Asynchronous</td>
<td>Synchronous</td>
</tr>
<tr>
<td>Online quiz</td>
<td>MCQ, true-false, matching, etc.</td>
<td>Synchronous</td>
<td>Asynchronous</td>
<td>Synchronous</td>
</tr>
<tr>
<td></td>
<td>short answer questions</td>
<td>Synchronous</td>
<td>Asynchronous</td>
<td>Synchronous</td>
</tr>
</tbody>
</table>

Assignment
Individual or group
asynchronous
**Assignment: Individual or group**

**asynchronous**

**Description**

In this modality, students receive instructions on the examination platform or by e-mail for the assignment they need to complete. They must submit their work on the examination platform within a specified time, which may be several hours, days or even weeks. This type of assessment implies that the student has access to resources. Students may be asked to submit intermediary drafts at specified times to ensure quality and authorship of the work. The time required for the assignment must be carefully calibrated. For this type of examination, and in view of the time and resources available, a high quality output is expected. The marking should be based on precise and explicit criteria. It is possible to distribute variations of the same subject in order to limit exchanges between students, while optimising the marking time.

- Essay  
- Article  
- Case study  
- Problem solving  
- Clinical Case  
- Data processing and analysis  
- Multimedia presentation  
- Calculation, problem resolution  
- Program (Code)  
- Report  
- Poster  
- Portfolio  
- etc.

**Recommendations**

- student stress can be reduced by providing feedback on initial drafts.
- conventional plagiarism detection methods can be used for highly selective testing.
- can be combined with quizzes to assess the acquisition of basic knowledge
- can be combined with an oral examination to assess the acquisition of argumentation and presentation skills
- the quality of the assessment can be enhanced by combining different types of assessment

- easy to manage for the teacher
- can assess high cognitive level(s)
- strong student engagement
- allows for more authentic assessments (close to real life situations)

- time consuming to grade (less if there is a test plan)
- may include other skills the teacher is not trying to assess (i.e., complicates criterion-referenced assessment)
# Assignment: Individual or group

**asynchronous**

**Recommendations for the teacher**

<table>
<thead>
<tr>
<th>Preparing the examination</th>
<th>During the examination</th>
<th>Marking and Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Levels of complexity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pedagogical aspects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Determine the learning outcomes to be assessed</td>
<td>□ Define and set up a help line for the students in case of queries</td>
<td>□ Correct the tests in off-line or online mode using the criteria grid provided</td>
</tr>
<tr>
<td>□ Choose the type of assessment</td>
<td>□ If necessary, provide intermediate feedback on drafts</td>
<td>□ Share the corrections with the students or organize online debriefing sessions if numbers permit</td>
</tr>
<tr>
<td>□ Choose the topic(s) to be addressed and write the instructions for each topic</td>
<td>□ Draw up a criterion-based marking grid</td>
<td>□ Make a suggested answer key for each theme or share a general feedback on the test</td>
</tr>
<tr>
<td>□ Calibrate the examination based on the outcomes being measured and the estimated time needed for each question</td>
<td>□ Determine a schedule for the delivery of drafts and feedback</td>
<td></td>
</tr>
<tr>
<td>□ Draw up a criterion-based marking grid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Determine a schedule for the delivery of drafts and feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Organizational aspects</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Defining the time frame for the assignment</td>
<td>□ Send one or more deadline reminder messages</td>
<td>□ Transmit the marks obtained to the registrar or upload them to the information system</td>
</tr>
<tr>
<td>□ Set the deadline and the method of submitting the work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Send the instructions to the students and upload them on the course platform</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Technical aspects</strong></td>
<td>□ Encode the instructions according to the tool chosen for the examination</td>
<td>□ Ensure access to the help line for students</td>
</tr>
<tr>
<td>□ Set up the opening and closing dates to access the examination</td>
<td>□ Ensure access to the help line for students</td>
<td>□ Create a back-up of the examinations including all the assignments for long-term archiving in accordance with the university’s regulations</td>
</tr>
<tr>
<td>□ assign topics to specific groups of students if applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Assignment: Individual or group

Asynchronous

from student’s standpoint

- Mail system invitation to the examination
- Sign-in to LMS
- Read the instructions
- Review the submission schedule
- Collect and consult resources
- Sign-out of LMS
- Check the presence of the document in the repository
- Upload the final output before the deadline
- Review intermediate feedback
- Submit draft(s)
- Assessment production
- Scann documents for plagiarism
- Feedback and marks
- Scan the presence of the document in the repository
- Upload the final output before the deadline
- Review intermediate feedback
- Submit draft(s)
- Assessment production

Green boxes represent teacher's actions.

Yellow boxes represent student's actions.

Blue boxes represent optional actions.
Assignment
Individual
synchronous
**Assignment**

**Individual**

**Synchronous**

**Description**

In this modality, students receive the instructions for the assignment on the examination platform at a given time. Students must complete and upload their work within a given time frame. The assignment may include access to resources and to the Internet. The time required for the assignment must be carefully calibrated. It is possible to assign variations of the same subject in order to limit the volume of exchanges between candidates, while optimizing the marking time.

- Essay
- Case studies
- Problem solving
- Clinical Case
- Data Processing and analysis
- Multimedia presentation
- Calculations
- Program (Code)
- Poster
- Etc.

**Recommendations**

- easy for teachers to manage
- can assess high cognitive level(s)
- allows for more authentic assessments (close to real life situations)
- time consuming to grade (less if there is a test plan)
- may include other skills the teacher is not trying to assess (i.e., complicates criterion-referenced assessment)

- highly recommended “mock exams” to reduce student stress.
- careful thought given to the examination settings, avoids the need for a proctoring system
- can be combined with quizzes to assess the acquisition of basic knowledge
- can be combined with oral examinations to assess the acquisition of argumentation and presentation skills
- the quality of the assessment can be enhanced by combining different types of examinations

**Note:** Proctoring is a system in which supervisors control students during synchronous examinations. This system makes it possible to check the identity of the student and to monitor him/her via his/her webcam and by recording his/her actions on his/her computer. This system is especially recommended for highly selective examinations.
## Preparing the examination

<table>
<thead>
<tr>
<th>Levels of complexity</th>
<th>Pedagogical aspects</th>
<th>Organizational aspects</th>
<th>Technical aspects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Determine learning outcomes to be assessed</td>
<td>□ Define the duration of the examination</td>
<td>□ Encode the instructions according to the tool chosen for the examination</td>
</tr>
<tr>
<td></td>
<td>□ Choose the type(s) of assessment</td>
<td>□ Set the examination schedule</td>
<td>□ Set the opening and closing times for access to the examination</td>
</tr>
<tr>
<td></td>
<td>□ Choose the topic(s) to be addressed and the type of activity that will be requested</td>
<td>□ Send the instructions to the students and upload them on the course platform.</td>
<td>□ Assign topics to specific student groups if applicable</td>
</tr>
<tr>
<td></td>
<td>□ Write instructions for each topic</td>
<td>□ Notify the Computer Centre about the date and duration of the test</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ Calibrate the examination based on the time required and access to access to resources</td>
<td></td>
<td>□ Ensure access to a helpdesk in case of problem</td>
</tr>
<tr>
<td></td>
<td>□ Draw up a criterion-based marking grid</td>
<td></td>
<td>□ Back-up the LMS course used for the test and all assignments for long-term archiving in accordance with the university's regulations</td>
</tr>
</tbody>
</table>

## During the examination

□ The teachers should be available online to answer questions regarding the instructions.

|                      | □ Option of setting up an internal and external proctoring system including identity verification | | |

## Marking and Feedback

□ Mark the tests, online or off-line, based on the marking grid

□ Share marks with the students

□ Write up a standard answer for each theme or a global feedback on the examination

□ Share the marks to the registrar or upload them on the information system
Assignment
Individual
Synchronous
from student’s standpoint

Mail system invitation to the examination
Students
Sign-in to LMS
Read the instructions
Starting Time
Collect and consult resources

Feedback and marks
Scanning documents for plagiarism
Sign-out of LMS
Check the presence of the document in the repository
Upload the final output before the deadline
Assignement production

Sign-in to LMS
Read the instructions
Starting Time
Collect and consult resources

Feedback and marks
Scanning documents for plagiarism
Sign-out of LMS
Check the presence of the document in the repository
Upload the final output before the deadline
Assignement production

Teacher
Student
quiz
Individual
asynchronous or synchronous
In this modality, students connect to the institution’s LMS and answer a set of questions, usually with a choice of answers, prepared by the teachers. There are a large number of possible formats and, except for the case of short answers or essays, the marking is automatic. However, a significant time investment is necessary to write the questions, the feedback and set up the scoring system. Quizzes can be done synchronously or asynchronously, with a preference for the former for summative assessments. Quizzes are particularly suitable for assessing knowledge and direct applications.

Quizzes can take many different forms:

- Traditional quizzes with a choice of answers (one or more correct answers)
- matching questions
- numerical questions
- true/false
- gap text
- sorting
- matching
- short answer or essay and paragraphs questions (cannot usually be corrected automatically).

Recommendations:
- think about a time-limited, synchronous examination with random questions, a random order for the questions and answers to make collaboration more difficult between students
- avoid googleable questions
- can be combined with oral tests, for example, to assess higher levels of learning
### Preparing the examination
- Determine learning outcomes to be assessed
- Write the questions (or choose them from a database) and feedback
- Decide on the scoring system and scale
- Write the instructions
- Have the questions tested by colleagues

### During the examination
- Remind students of the instructions

### Marking and Feedback
- Automatic marking (except for short answer or essay questions)
- Share the answer with the students (after the end of all examinations, if asynchronous)

### Pedagogical aspects

<table>
<thead>
<tr>
<th>Preparing the examination</th>
<th>During the examination</th>
<th>Marking and Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determine learning outcomes to be assessed</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Write the questions (or choose them from a database) and feedback</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Decide on the scoring system and scale</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Write the instructions</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Have the questions tested by colleagues</td>
<td>□</td>
<td></td>
</tr>
</tbody>
</table>

### Organizational aspects

<table>
<thead>
<tr>
<th>Preparing the examination</th>
<th>During the examination</th>
<th>Marking and Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Define the duration of the test</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Set the examination schedule</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Deposit the instruction in the LMS and inform the students</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Organise proctoring (internal or external) if necessary, and IT support</td>
<td>□</td>
<td></td>
</tr>
</tbody>
</table>

### Technical aspects

<table>
<thead>
<tr>
<th>Preparing the examination</th>
<th>During the examination</th>
<th>Marking and Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encode the instructions according to the tool chosen for the examination</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Check the settings of the application: random order of questions and answers, start and end time, right to return to previous questions, etc.</td>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Test the quiz</td>
<td>□</td>
<td></td>
</tr>
</tbody>
</table>

### Quiz

**Individual**

**Asynchronous or Synchronous**

**Recommendations for the teacher**
**Quiz**

**Individual**

**Asynchronous or Synchronous**

*from student’s standpoint*
oral examination
individual or group
synchronous
In this modality, the students receive, on the teaching platform or by e-mail, the instructions for completing an oral examination and information about its length. These instructions may include the topic of the examination or it may only be given at the beginning of the test. Access to resources may be allowed during the preparation time. Considerable attention must be given to the preparation of a criterion-based grid to avoid any biases associated with oral examinations.

- case analysis
- poster or multimédia presentation
- report
- practice or observation report
- portfolio

**Description**

**Oral Examination**

**Individual or group**

**Synchronous**

**Asynchronous**

**Recommendations**

- requires the creation of a criterion-based grid to reduce evaluation bias
- may be used in combination with an individual or collective assignment or quiz.

+ allows for more authentic assessments (close to real life situations)
+ may test higher cognitive skills as well as oral communication and argumentation skills
+ marking and feedback are relatively quick

- the examination process can be very time-consuming depending on the number of students.
- the student's stress level may be high

**oder**

- multi-stakeholder debate
- role playing
<table>
<thead>
<tr>
<th>Levels of complexity</th>
<th>Preparing the examination</th>
<th>During the examination</th>
<th>Marking and Feedback</th>
</tr>
</thead>
</table>
| Pedagogical aspects  | □ determine the learning outcomes to be assessed  
□ choose topics  
□ define evaluation criteria  
□ create an evaluation grid  
□ write the examination instructions | □ remind students about the examination instructions  
□ remind students about the evaluation criteria | □ use a criteria grid with the student's name on it.  
□ set up an cross-validation with other examiners  
□ include feedback for the student |
| Organizational aspects | □ define the duration of the test  
□ set the schedule  
□ recruit additional examiners if needed  
□ send test instructions to students and examiners  
□ upload the instruction on the LMS  
□ carry out a test for the connection to the virtual examination room | □ manage the examination schedule  
□ check the identity of the student at the beginning of the examination  
□ control the student's environment  
□ hand out the topic | □ share marks with the registrar or upload them to the information system |
| Technical aspects    | □ create a virtual examination room  
□ create an emergency back up room in a different tool  
□ set up the “Criteria grid” tool in the LMS if available.  
□ preparing a note-taking file | □ use the “waiting room” feature if available in the videoconferencing tool  
□ activate the “screen sharing” feature for the student  
□ record the session, after checking with the student, in case of appeal  
□ IT support in case of problem | □ Fill in and upload the marks |
oral examination
individual or group
synchronous
from student’s standpoint

Mail system invitation to the examination → Students → Connection to virtual room → Instruction and subject hand-over → Preparation phase for student → Oral examination

Marking → Disconnection from virtual room → Teacher feedback → End of examination period

- teacher
- student
- optional
to go further...

The publications of the erasmus project “remote monitoring of remote examinations” (OP4RE) are available on these pages:

