vademecum for the remote assessment of students

Elements for determining remote evaluation modalities

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Vademecum for Remote Assessment   April 2020

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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:

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?
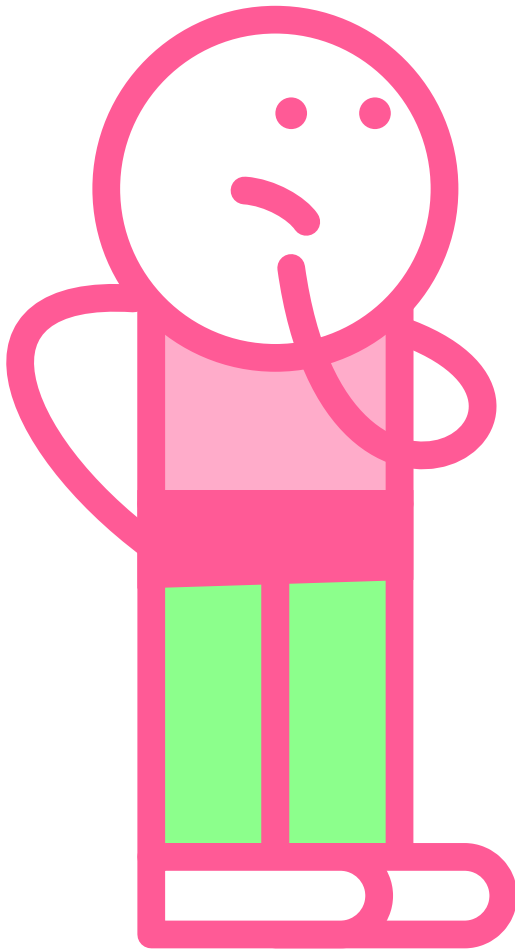
synoptic table

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

Legend: ● = well suited · ◐ = possible use · (blank) = not indicated

| Main categories of examination	Types of assessment	Exam settings — Individual work Synchronous	Individual work Asynchronous	Group work Synchronous	Group work Asynchronous	Assessable levels of cognition (in reference to Bloom's taxonomy*) Remember	Understand	Apply	Analyse	Evaluate	Create
Assignment	essay (handwritten or typed)	●	●	◐	●	◐	◐	●	●	●	
	case study	●	●	◐	●	◐	◐	●	●	●	◐
	multimedia presentation (e.g. video)	◐	●		●	◐	●	●	●	◐	●
	data processing and analysis	●	●		●		●	●	●	◐	●
	clinical case	●	●		●		●	●	●	●	●
	problem resolution	●	●		●	◐	●	●	●	●	●
	program (code)	●	●		◐		●	●	◐	●	●
	report	◐	●		●		◐	●	●	●	●
	poster	◐	●		●			●	●	●	◐
	portfolio, reflective essay		●		◐			◐	●	●	●
	dissertation		●					◐	●	●	●
Oral examination	presentation	●		●	◐	●	●	●	●	●	●
	debate	●		●	◐		●	●	●	●	
	défense de rapport, compte rendu	●	●	●	◐		●	●	●	●	
	séance de poster		◐	●					●	●	
	jeu de rôle			●			◐	●	●		
Online quiz	MCQ, true-false, matching, etc.	●	◐			●	●	◐			
	short answer questions	●	◐				●	●	●		

well suited

possible use

Bloom, B. S.; Engelhart, M. D.; Furst, E. J.; Hill, W. H.; Krathwohl, D. R. (1956). Taxonomy of educational objectives: The classification of educational goals. Handbook I: Cognitive domain. New York: David McKay Company.
https://www.enseigner.ulaval.ca/system/files/taxonomie_cognitif.pdf
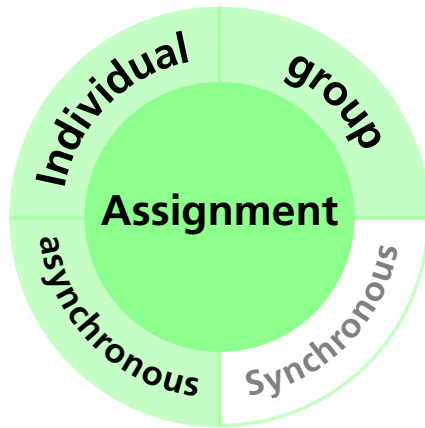
Assignment
Individual or group
Asynchronous

Assignment : individual or group

asynchronous
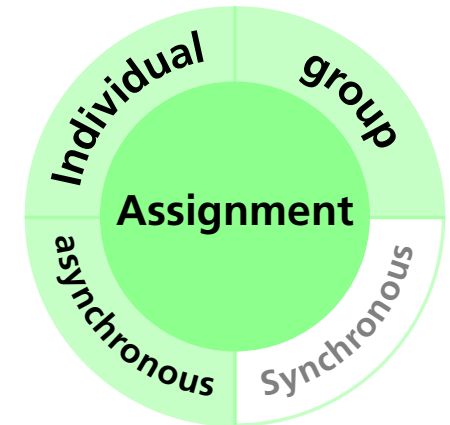
Description

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.

:)

+ 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)

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

Assignment : individual or group
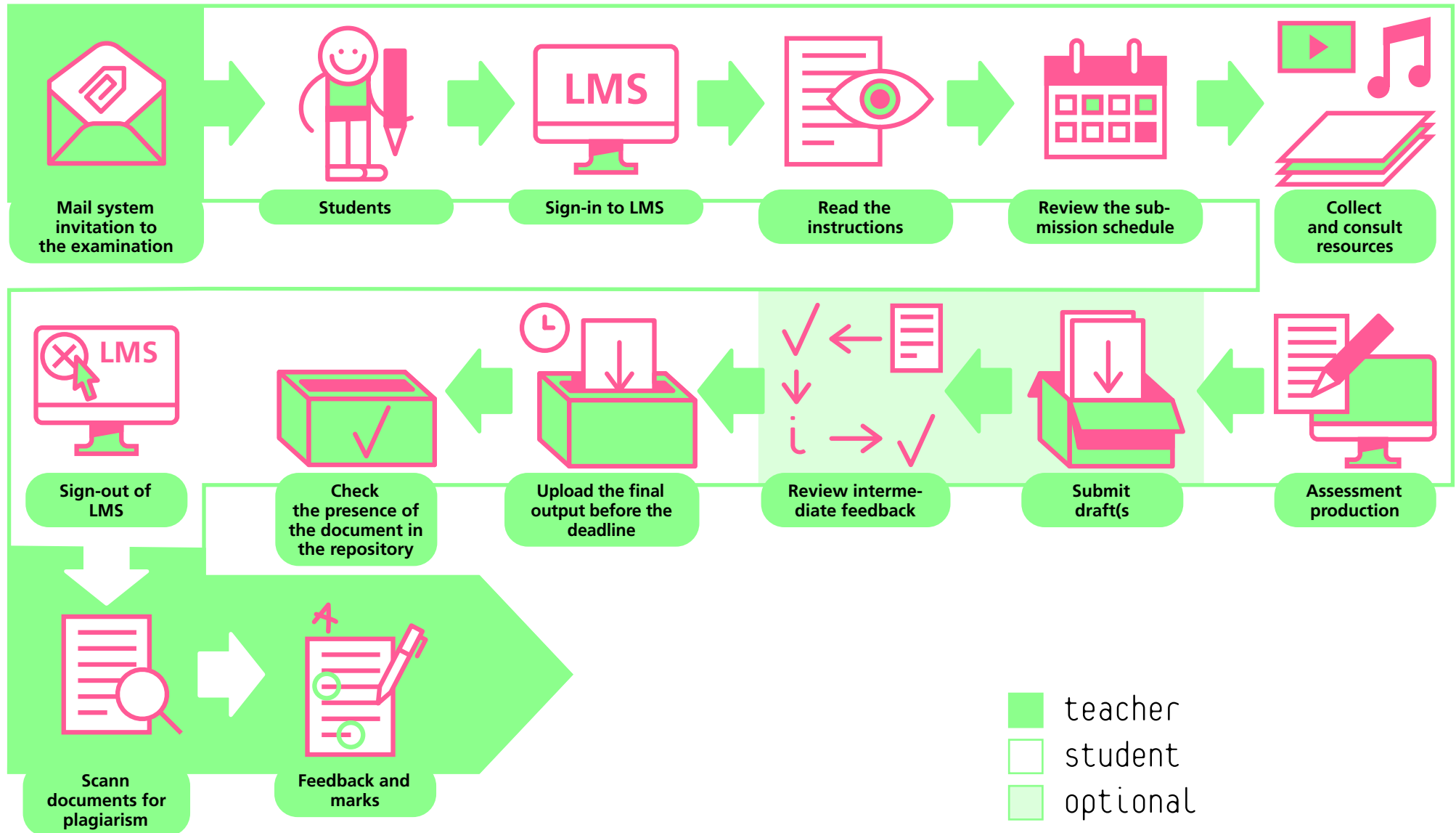
Asynchronous

Recommandations for the teacher

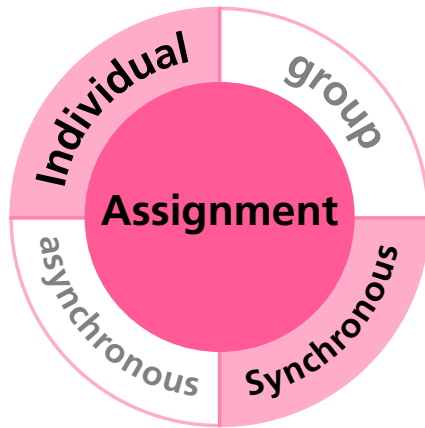| Levels of complexity	Preparing the examination	During the examination	Marking and Feedback
Pedagogical aspects	Determine the learning outcomes to be assessed Choose the type of assessment Choose the topic(s) to be addressed and write the instructions for each topic Calibrate the examination based on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

Assignment: individual or group
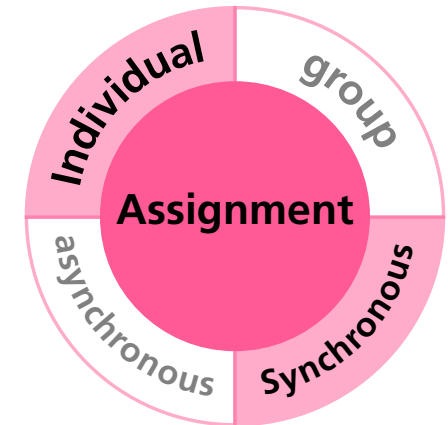
Asynchronous

from student's standpoint

Mail system invitation to the examination → **Students** → **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**

Legend:
- teacher
- student
- optional

ASSIGNMENT
INDIVIDUAL
synchronous

assignment Individual

synchronous

Individual · group · asynchronous · Synchronous

Assignment

Description

In this modality, students receive the instructions for the assignment on the examination platform at a given time. Students must complete and up load 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.

☺

+ 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)

Recommendations

- 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.*
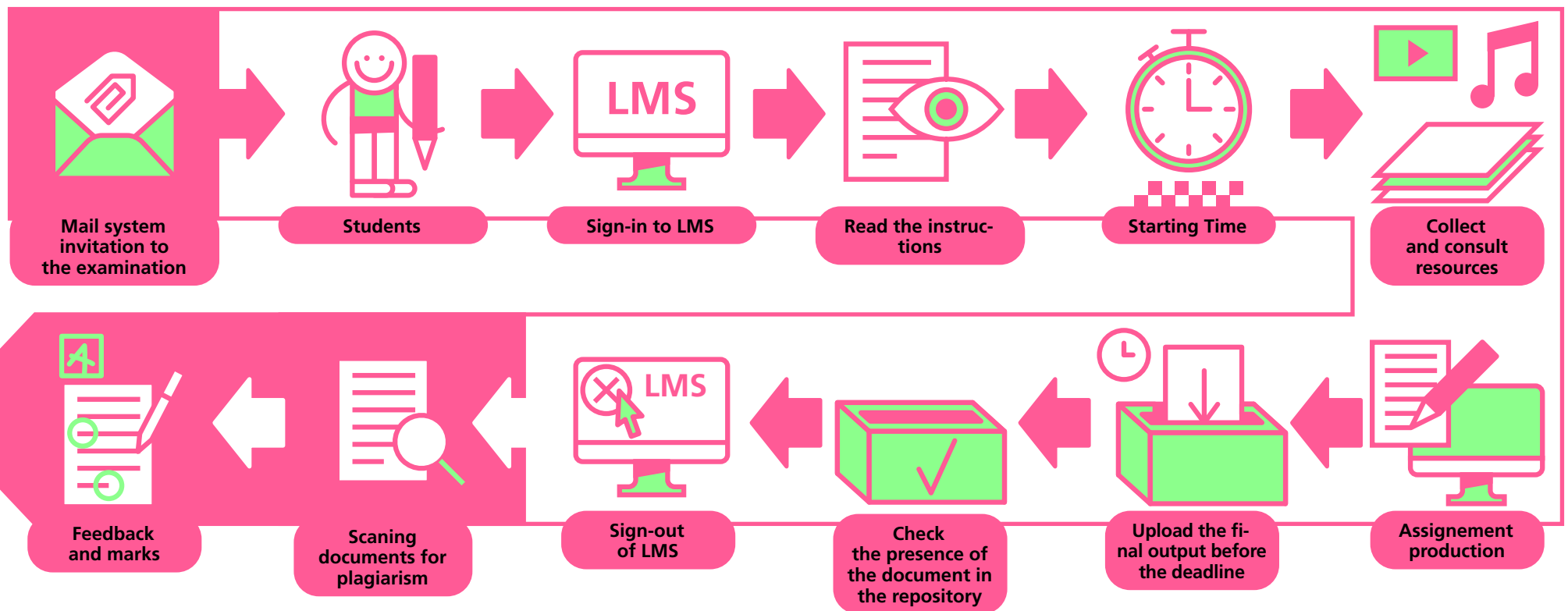
Assignment
Individual
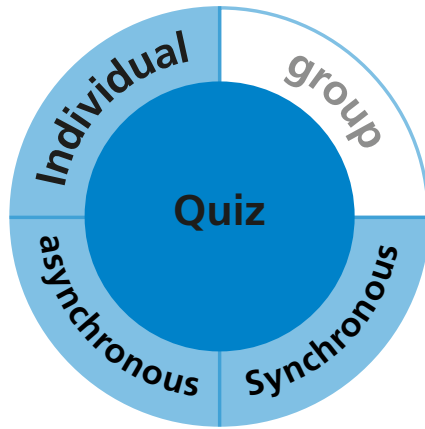
synchronous

recommandations for the teacher

	Preparing the examination	During the examination	Marking and Feedback
Levels of complexity			
Pedagogical aspects	Determine learning outcomes to be assessed Choose the type(s) of assessment Choose the topic(s) to be addressed and the type of activity that will be requested Write instructions for each topic Calibrate the examination based on the time required and access to access to resources Draw up a criterion-based marking grid	The teachers should be available online to answer questions regarding the instructions.	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
Organizational aspects	Define the duration of the examination Set the examination schedule Send the instructions to the students and upload them on the course platform. Notify the Computer Centre about the date and duration of the test	Option of setting up an internal and external proctoring system including identity verification	Share the marks to the registrar or upload them on the information system
Technical aspects	Encode the instructions according to the tool chosen for the examination Set the opening and closing times for access to the examination Assign topics to specific student groups if applicable	Ensure access to a heldpesk in case of problem	Back-up the LMS course used for the test and all assignements for long-term archiving in accordance with the university's regulations

Assignment
Individual

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

Scaning 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

Quiz
Individual

Asynchronous or synchronous

Description

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.
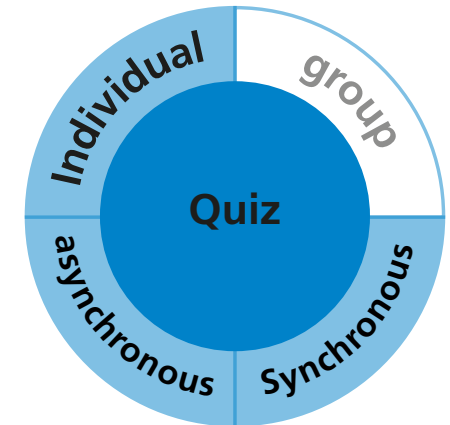

Quizzes can take many different forms:

• 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).

Include various media

• texts • numbers • equations
• graphs • images • videos

:)
+ tests knowledge and direct applications

+ marking and feedback may be automatic

:(
- more difficult to measure higher cognitive skills

- very long to prepare and must be tested by others

- complex calibration of the length and level of difficulty

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

Quiz

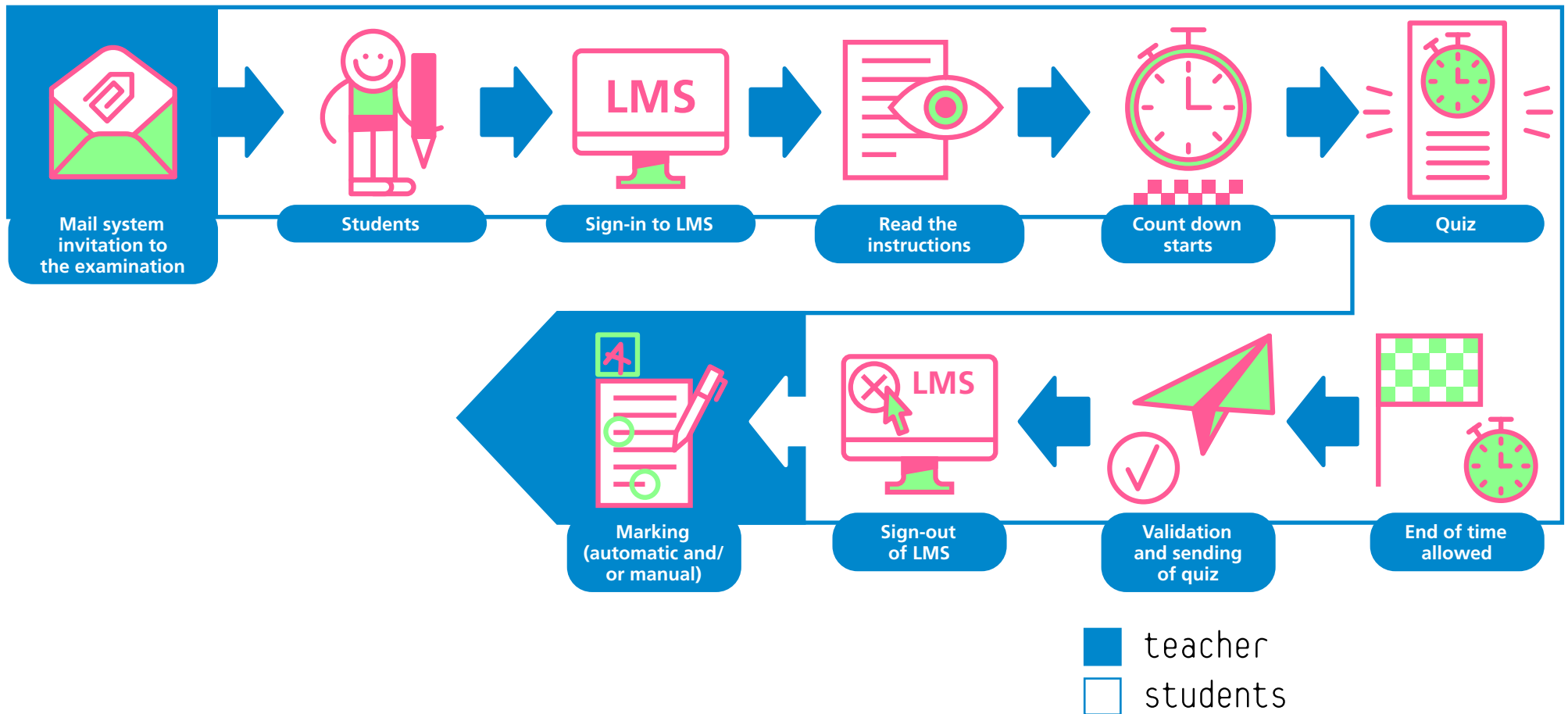## Individual

Asynchronous or synchronous

Recommandations for the teacher

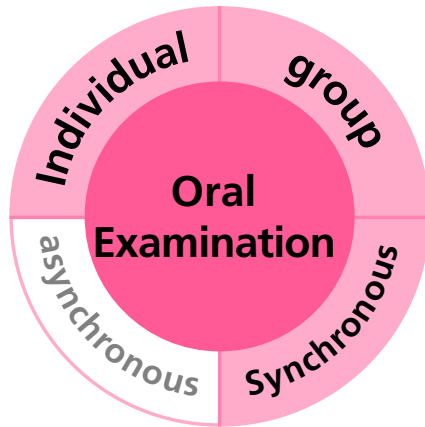|	Preparing the examination	During the examination	Marking and Feedback
Levels of complexity			
Pedagogical aspects	**Determine learning outcomes to be assessed** **Write the questions (or choose them from a database) and feedback** **Decide on the scoring system and scale** **Write the instructions** **Have the questions tested by colleagues**	**Remind students of the instructions**	**automatic marking (except for short answer or essay questions)** **share the answer with the students (after the end of all examinations, if asynchronous)**
Organizational aspects	**Define the duration of the test** **Set the examination schedule** **deposit the instruction in the LMS and inform the students** **organise proctoring (internal or external) if necessary, and IT support**	**Control access of the LMS**	**share marks with the registrar or upload them to the information system**
Technical aspects	**Encode the instructions according to the tool chosen for the examination** **Check the settings of the application: random order of questions and answers, start and end time, right to return to previous questions, etc.** **Test the quiz**	**For synchronous sessions:** **IT team in place in case of problem** **Teaching staff online to answer questions**	**Back-up the LMS course used for the test and all assignements for long-term archiving in accordance with the university's regulations**

Quiz
Individual

Asynchronous or synchronous

from student's standpoint

Mail system invitation to the examination

Students

Sign-in to LMS

Read the instructions

Count down starts

Quiz

End of time allowed

Validation and sending of quiz

Sign-out of LMS

Marking (automatic and/or manual)
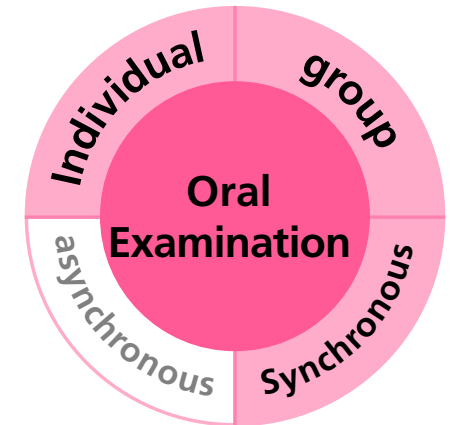
teacher

students

oral examination
individual or group
synchronous

oral examination
Individual or group

synchronous

Description

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

oder

• multi-stakeholder debate
• role playing

:)
+ 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

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 quizz.
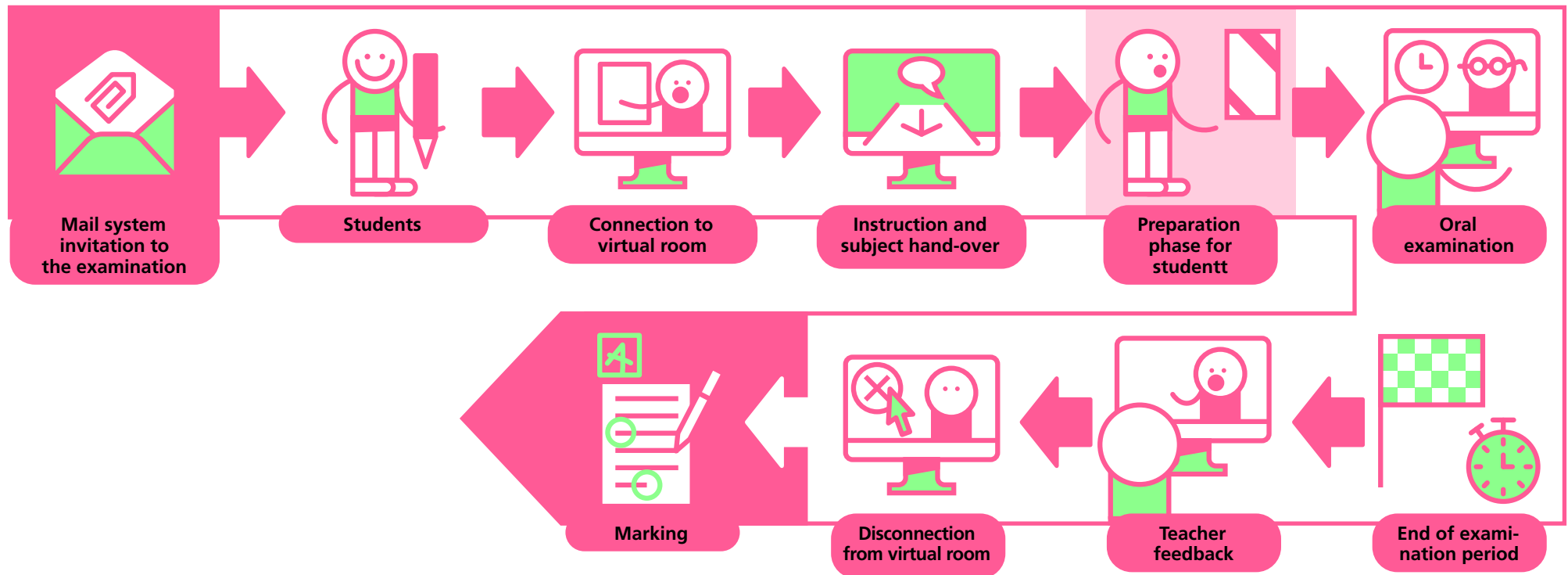
oral examination
individual or group

synchronous

recommandations for the teacher

	Preparing the examination				During the examination				Marking and Feedback			
Levels of complexity	▉				▉	▉			▉	▉	▉	
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 studentt

Oral examination

Marking

Disconnection from virtual room

Teacher feedback

End of exami-nation period

teacher

student

optional

to go further...

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

EUA (March, 2020). Student assessment: Thematic Peer Group Report. Learning and Teaching paper #10.

Sylvestre, E. (2014). Accompagner les enseignants de l'enseignement supérieur dans la conception d'évaluation critériées. Actes du 26ème colloque de l'ADMEE-Europe.

Townley, C. and Parsell, M. (2004). Technology and Academic Virtue: Student Plagiarism Through the Looking Glass. Ethics and Information Technology, 6(4), pp. 271–277.