

Evaluation Guide for Online Teaching in Times of Emergency

Universidad Carlos III de Madrid, May 29, 2020 (Version 1.4)

Update on version 1.4: new version of the Grid View extension for Google Meet (Annex I).

Updates on version 1.3: information to provide to students in each type of assessment (item 4.4.); impossibility for recording in a group session in Blackboard Collaborate (annex II).

Updates on version 1.2: informing students beforehand about the exam (item 1); if there is any doubt about the student identity, request of official ID (item 1); Report 0036/2020 from AEPD added (item 2 and references); informing students about the assessment recording (items 3.1 and 3.2); additional recommendations for synchronous and asynchronous assessments (items 3.4 and 3.5); further details on ethical behavior infringements or not respecting the teachers' instructions (item 4.4.); and recommendation about including alternatives in quizzes in order to leave questions in blank when wrong answers are penalized (annex IIIc).

Updates on version 1.1: remarks on video surveillance and mobile phone (items 3, 3.1, 3.2, 3.5; annex I), types of documents accepted for student identification (item 3.6), students' ethical behavior (item 4.4) and enhanced precision in explanations on assignments and quizzes in Aula Global (annexes IIIa and IIIb).

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This is an English translation of the original document in Spanish. The Spanish version is the valid one in case of interpretation conflicts.

1. Presentation

In times of emergency, the online assessment of students in a course is much more challenging than its online teaching, as students' assessment has to be done under certain conditions that are difficult to be achieved by conventional digital means. This guide aims to provide guidelines for implementing online assessment (for both the final exams or the continuous assessment), in accordance with the provisions of section 4 of the Instruction of the Vice-Rector of Studies of the Universidad Carlos III de Madrid, from April 15, 2020, which establishes the framework in order to adapt teaching activities for the completion of the 2019/20 academic year.

The specific objective is to provide the teaching staff with different online assessment systems so that they can assess their students in the most appropriate way for each course and, at the same time, minimize fraud or unethical behavior. We have to be aware that there is no 100% reliable system for either face-to-face or online exams. We must also consider that we are in an emergency situation, where it is impossible to guarantee normal conditions, and that the students themselves are already in a stressful situation. Regardless of their personal and family health and emotional situations, we will have to determine whether their technological conditions may prevent the reliable implementation of the assessment system chosen. Although teachers may be under similar stress, they should be flexible enough to find the best solution for everyone. However, we must be aware that incidents of various kinds may occur. We are faced with an emergency situation in which we cannot expect everything to go on as in ordinary times.

A face-to-face exam brings students together at a predetermined time in supervised classrooms. As this is not possible, other substitutes must be applied, but bearing in mind that it will not be possible to do the same as in a face-to-face environment in terms of both form and substance. Neither can the surveillance conditions that can be achieved in a classroom be reproduced, nor will it be possible to transfer all types of assessment systems to the online mode. It will be necessary to rethink what is assessed and how it is assessed in the new context. In this regard, we would like to highlight three key recommendations:

- Special emphasis should be placed on the **essential** skills and content of each course, and especially those required for subsequent courses.
- Students are faced with new types of assessments. Therefore, it is recommended that equivalent exams will be available beforehand so that students know what to expect. Students must be able to **familiarize** themselves with both the type of exam they will be facing and the technology required to do the exam.
- The academic results of the online assessments should not differ much from those of previous years. Therefore, given the exceptional nature of the situation, the **assessment criteria** should be adapted so that this is the case.

This guide aims to be a reference that will serve as a basis for teachers to prepare themselves. This does not mean that for any particular case of a specific course some other solutions cannot be used. Applications are changing very quickly at present, so it is possible that interesting solutions may appear later. However, we want to make clear the framework of possible solutions:

- Exams shall be conducted with academic rigor under the best possible guarantees within the legal system in force.
- The students must be informed beforehand about the type of exam they are going to do. The day of the exam it is recommended to gather the students in advance before the assessment starts in order to review the instructions and how the exam works. In the *Evaluation Guide for Online Learning* (<https://www.uc3m.es/uc3mdigital/covid19/students>) there are general instructions for students that the teachers should be aware of.
- In any type of assessment the identity of the student must be clear. The teacher may ask the student to show an official identification document (national ID - DNI, NIE - or passport) at any time, so this document must be at hand. When showing the official identification document, it is sufficient to show the photograph and full name; the rest of the data on the document can be hidden. Sending exams by email is not recommended. If the student has, for example, to submit an assignment, s/he should use Aula Global (Moodle), just in case the teacher experiences any unexpected problems.
- It is possible to record videoconference sessions, indicating this to the student beforehand and keeping an evidence of the information provided. Specifically, oral exams can be recorded but synchronous videoconference sessions for surveillance and support will not be recorded. The recordings will only be available to the teaching staff to assess the students in the course and to revise, if necessary, the assigned grade. The recordings will be kept by the teaching staff in a repository that complies with the standards of protection of personal data.
- Assessment systems involving biometric control of the students will not be used.
- At present, the use of a specific browser to lock down students' testing environment is recommended for all those exams carried out through computers.
- Inevitably, incidents will arise during the realization of online exams. It is unlikely that the online exams will run as smoothly as the face-to-face ones. This emergency situation is an added effort for all those involved. The understanding that all the university bodies show towards each other is much appreciated. The entire university community is affected.

The following are some issues to consider, both in terms of how to implement different types of assessments and the tools available. We have consulted the documentation published by various bodies for the preparation of this guide: Ministerio de Universidades (Ministry of Universities), REACU, Fundación para el Conocimiento Madri+d, CRUE, various Autonomous Communities and universities, as indicated in the references.

2. Legal Basis

One of the main premises in the preparation of this guide has been that the recommendations included in it are strictly in line with legal requirements and, in particular, that they fully respect the right to self-image and privacy of those involved in the assessments while ensuring the protection of their personal data. Any measures adopted on an individual basis outside the provisions of this guide must be in accordance with the requirements of the applicable regulations, for which purpose the teachers responsible must consult the University Data Protection Officer: dpd@uc3m.es.

In order to assess the legal compliance of the measures included in this guide, it must be assumed that the processing of personal data is considered lawful when it is necessary for the fulfilment of a mission carried out in the public interest or in the exercise of public powers conferred on the data controller, as provided for in article 6 i) of the General Data Protection Regulation (Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 -GDPR-). This is the case which more specifically legitimizes the processing of student data by their universities when assessment activities are carried out, without the need to obtain the consent of the data subjects.

Likewise, all the recommendations included in this guide are also in accordance with the principle of proportionality (article 5.1 c) GDPR), which guarantees that the processing of the data involved has a specific purpose, such as academic assessment; and that these recommendations do not go beyond what is necessary to achieve their objectives, thus responding to a criterion of minimizing the processing of personal data.

In this respect, it is worth mentioning the criterion of the Spanish Data Protection Agency (Agencia Española de Protección de Datos - AEPD), which has pronounced on the processing of data by the universities when conducting exams in its Report of 24 September 2019 (N/REF: 010601/2019) in which it states that "*the recording of oral exams may be necessary as a means of proof for the exercise of the rights of the student, as well as for the teacher to be able to justify the assessment made*", and adds that the recording of the teaching sessions "*may be convenient or even necessary (for example, in distance learning universities) for the exercise of the educational function, the basis for which would also be found in article 6. 1(e), access to which must be limited to the teaching staff and students to whom it is addressed, and may not subsequently be used for other purposes, such as public dissemination, which would require the express consent of those concerned*". The current situation of confinement has made it necessary for academic activity to be carried out at a distance, so that the criterion laid down by the AEPD is applicable not only to the recording of oral exams in person but also to the recording of online oral exams via videoconference, since these are necessary measures to ensure the integrity of the assessment and as a means of evidence, without them being considered disproportionate.

The same conclusion has been reached in the study prepared for the Conference of Rectors of Spanish Universities (Conferencia de Rectores de las Universidades Españolas - CRUE) by Ricard Martínez Martínez, Mónica Arenas Ramiro, José Pascual Gumbau Mezquita: "Report on the regulatory impact of online assessment procedures:

data protection and guarantee of students' rights" ("Informe sobre el impacto normativo de los procedimientos de evaluación online: protección de datos y garantía de los derechos de las y los estudiantes"), of 15 April 2020, in which the proportionality of the recording of oral exams via videoconference is admitted.

Moreover, since biometric data are particularly protected and there are less invasive control alternatives, methodologies and applications that do not use such data for student identification have been chosen in order to best safeguard students' rights. With regards to this, and related to an inquiry from CRUE about using facial recognition techniques for checking the students identity, the Spanish National Data Protection Agency (AEPD) has published the Report 36/2020, where states that the facial recognition techniques imply the processing of special categories of data. As a result, these data will only be processed when the student gives his or her consent for their processing, thus being complicated that this consent is given freely, or when under a Law specifying the existence of a public interest essential to that processing, therefore making sure to mitigate the risks for the rights of those concerned. Moreover the corresponding impact evaluation must be carried out and, in that case, an inquiry to the data protection authority must be placed when that evaluation may imply a high risk for the rights of those concerned.

To conclude, it should be noted that measures such as systems for blocking the student's work environment during assessment activities (*LockDown Browser*), do not involve any processing of personal data, but are a manifestation of the power of organization and good order in the classroom that is recognized to the teacher to ensure the conditions for conducting an assessment activity.

3. Main types of assessments and tools available

UC3M has several tools for assessment purposes. The following is a summary of the main types of assessments recommended along with the tools that support them.

TYPE OF ASSESSMENT	TOOL	INTEGRITY
Oral exam	3.1 Google Meet launched outside Google Calendar (see Annex I)	Verification by the teaching staff and recording
Presentation of an assignment to the class and/or teachers	3.2 Blackboard Collaborate (see Annex II) or Google Meet (see Annex I)	Verificación by the teaching staff with the possibility of recording
Submission of an assignment	3.3 Assignment in Aula Global (Moodle) with deadline (see Annex IIIa)	Verification with Turnitin anti-plagiarism tool
Asynchronous assessment quiz with open-ended and closed-ended questions	3.4 Quiz in Aula Global (Moodle) with fixed duration (see Annex IIIb)	Possibility of using Respondus LockDown Browser to block the student's work environment during the assessment activity (see Annex IV)
Synchronous assessment quiz with open-ended and closed-ended questions	3.5 Quiz in Aula Global (Moodle) with start time and end time (see Annex IIIb)	Verification via video conferencing through Google Meet (see Annex I) or Blackboard Collaborate (see Annex II) Possibility of using Respondus LockDown Browser to block the student's work environment during the assessment activity (see Annex IV)
	3.6 Quiz to be developed by the student with paper and pen An iPad or tablet could be a better solution, if available	Verification via video conferencing through Google Meet (see Annex I) or Blackboard Collaborate (see Annex II) Possibility of using document scanning applications, such as Google FotoScan , HP Smart or MS OfficeLens to send the outcome of the assessment activity to the teacher through an assignment in Aula Global (Moodle)

Most of the tools mentioned in the table are already known:

- **Google Meet** (see Annex I) allows to make video conferences with chat and to record them. The teacher can share his/her screen and also share a presentation with information. A chat is available for all attendees (it is not possible to create private chats or subgroups). A full view (grid) of all attendees can be activated by using the Chrome browser and an [extension](#). It is possible to use a Jamboard (virtual whiteboard). Videoconference sessions can be created within Google Calendar or directly from Google Meet (access permissions to recordings differ in each case, see Annex I). Students who do not have a webcam on their

computer must connect using their mobile phone. The teacher must manage Google Meet sessions using his/her institutional account.

- **Blackboard Collaborate** (see *Annex I/*) allows to make video conferences with chat and record these video conferences. Blackboard Collaborate is integrated in Aula Global (Moodle) as an "External Tool", although it could also be launched from outside Aula Global. Student authentication when accessing the video conference is only done when Blackboard Collaborate is integrated into Aula Global as "External Tool". Blackboard Collaborate supports moderator roles and private chats. It supports the creation of sessions of up to 500 users. It only supports to watch five people sharing video at a time.
- **Aula Global (Moodle)** (see *Annexes IIIa and IIIb*) is the main learning management system at UC3M. It is not only used for the communication with students and the sharing of documents. It also allows the creation of "Assignments" for students to submit their work in the form of documents and files as requested by teachers, and "Quizzes" with open-ended and closed-ended questions.
- **Turnitin** (see *Annex IIIa*) is used to check the originality of documents. It is integrated into the Aula Global (Moodle).
- **Respondus LockDown Browser** (see *Annex IV*) is a special browser that allows the student's work environment to be blocked during an assessment activity so that the student cannot access web pages or use applications, except those indicated by the teacher. Respondus LockDown Browser is compatible with the quizzes in Aula Global. Students must download and install this browser before starting the assessment activity where it is to be used.
- **FotoScan**, **HP Smart** and **OfficeLens** are free tools from Google, HP and Microsoft respectively for scanning documents.

The different types of assessments are detailed next.

3.1 Oral exam via videoconference

If the number of students is small, it is feasible to conduct an exam through video conference using Google Meet. It can be an oral exam, simply asking the student several questions by word of mouth, once s/he is properly identified. The student can even share his/her screen to answer some of the questions. These exams do not have to be very long, with about 15 minutes the teacher can already judge quite well the knowledge acquired by the student. Obviously, this procedure is not suitable if the number of students per teacher is large. For example, 20 students for 15 minutes each would mean 5 hours of actual exam time. In this case, it is necessary to have several possible questions prepared, so that the exam is not always the same.

The oral exam must be recorded to keep an evidence of the student's assessment and the teacher must always inform the student that this is going to be recorded, keeping an evidence of the information provided. Since the recording should only be kept by the teacher, as indicated in the joint instruction of the Secretary General and the Vice-Rector of Studies for the custody and management of the recordings of the oral exams published on 24 March 2020, the videoconference room will need to be created from Google Meet,

not from Google Calendar (see table on Annex I). Students who do not have a webcam on their computer must connect using their mobile phone.

3.2 Presentation of an assignment to the class and/or teachers via videoconference

Video conferences using Blackboard Collaborate or Google Meet can also be useful for students to present their work done for an assignment. These presentations can be either individual or in groups. In any case, the teacher must identify the presenters. The video conference can be open to other students in the same class. The presentation could be recorded to keep evidence of the assessment. In the case of presentations open to other students in the same class, it would be possible to share the recording with the entire class (see recording tables in Annexes I and II). Students who do not have a webcam on their computer must connect using their mobile phone.

If the presentation is going to be recorded, the teacher must always inform the student that this is going to be recorded, keeping an evidence of the information provided

3.3 Submission of an assignment via Aula Global

The realization of assignments (essays, exercises, etc.) by students individually or in groups is another good way to assess the acquired knowledge and developed skills. The documents generated by the students can be submitted to Aula Global (Moodle) in an "Assignment" activity. If the document produced contains an essay, the teachers can use Turnitin, which is integrated in Aula Global (Moodle), to check the originality of the text produced by the students (See Annex IIIa).

3.4 Asynchronous assessment quiz with open-ended and closed-ended questions via Aula Global

The creation of quizzes ("Quiz") in Aula Global (Moodle) is a simple process that starts with the creation of question banks. These questions can be either open-ended (e.g., an essay) or closed-ended questions (e.g., a multiple choice test). Annex IIIb details the main types of questions that can be used in Aula Global (Moodle), as well as their value for knowledge assessment. Annex IIIc presents some examples of good practices in generating multiple choice questions. It is also possible to create banks of questions that can later be randomly presented to students, so that each student receives a different set of questions.

The quizzes in Aula Global (Moodle) can be available for a long period of time, for example a full day, so that students can take them at any time within that period in an asynchronous way. This is helpful for students who may be in different time zones. In this case, the quiz should be configured to have a fixed duration. The student will only have the time established by the teacher to complete the quiz from the moment s/he opens it in Aula Global (Moodle). It is important to configure the quizzes with the option "open attempts are submitted automatically when time expires" to avoid the student consuming the time without having sent his/her answers to the quiz (see Annex IIIb).

Asynchronous assessment quizzes can be combined with the "Respondus LockDown Browser" which blocks the student's work environment during the quiz, avoiding the use of additional web pages or applications (except those indicated by the teacher). In case the teacher decides to use the "Respondus LockDown Browser" it would be convenient to run an example quiz, for students to download, install and familiarize themselves with this browser.

When using quizzes in asynchronous assessments it is important to take into account that no modifications must be made during the period they are open.

Asynchronous assessment quizzes cannot be monitored through video conference since it is not possible to guarantee that the teacher will be able to attend to such surveillance, either because the period for sending the test is long or because the sending of the various students occurs at different moments over time.

3.5 Synchronous assessment quiz with open-ended and closed-ended questions via Aula Global

Teachers can set a start time and an end time for a synchronous exam, which can be conducted through a quiz in Aula Global (Moodle). The content of the exam can be divided in several quizzes, all of them with start time and end time, so that students cannot go back to quizzes whose time has already finished. If the quiz has also a fixed duration, it is important to configure it with the option "open attempts are submitted automatically when time expires" to avoid the student consuming the time without having sent his/her answers to the quiz (see Annex IIIb).

The quizzes must be added in advance and published visible, setting up a start date/time, or either configuring an access password (to be communicated afterwards to the students during the support/surveillance). This way it is possible to prevent from editing/changing the status of the quiz before the exam, thus avoiding last minute errors.

Additional time should be allocated between the completion of one quiz and the beginning of the next one.

Synchronous assessment quizzes must be combined with teacher surveillance using Google Meet and asking students to activate their webcam. Students who do not have a webcam on their computer must connect using their mobile phone. This online surveillance for synchronous assessment quizzes is similar to that for a face-to-face exam and also serves to solve possible questions. In this case, it is advisable to use the [Google Chrome Grid View extension](#), which supports a grid view with multiple students.

In the case of large groups, surveillance is more complicated. Therefore, it is advisable to divide the group of students into subgroups (at different times or being monitored by several teachers), so that each teacher monitors a maximum of 15-20 students at the same time. Similarly, teachers should try to reduce the number of questions that students will have to answer during the exam, use clear statements, and allow the student to indicate the interpretation s/he has followed in solving an open-ended question.

It is possible to use Google Meet and at the same time, optionally, "Respondus LockDown Browser", which blocks the student's work environment during the quiz, avoiding the use of additional web pages or applications (except those indicated by the teacher). However, it should be noted that it is only possible to combine the "Respondus LockDown Browser" with Google Meet if the student connects to Google Meet via the mobile phone, as connecting to Google Meet via his laptop or desktop computer while using the "Respondus LockDown Browser" could cause numerous technical problems. If the teacher decides to use the "Respondus LockDown Browser" it is convenient to have a test questionnaire for students to download, install and familiarize themselves with this browser.

3.6 Synchronous assessment quiz with paper and pen

There are some types of assessments in which it is difficult to type the answers only with a computer keyboard. This refers to cases where a circuit has to be drawn or complex formulas have to be written (mathematical, chemical or other) for which an alternative representation may exist, but is more cumbersome. In such cases, it is more convenient to use paper and pen to take the exam. The outcome of the exam can be scanned with free applications, such as FotoScan, HP Smart or OfficeLens, and uploaded as an "Assignment" in Aula Global (Moodle).

On the first page, the student should write the text displayed below. S/he must fill in the fields indicated and sign. When scanning, the student must add the national ID card, or passport. With the signature the student declares that s/he has not used any dishonest practice and that s/he assumes the administrative and disciplinary responsibility that may result otherwise.

I declare that I have carried out the assessment activity in accordance with the indications given and without having used any resource that has not been expressly authorized by the teachers, assuming all the administrative and disciplinary responsibility that could result from the use of any dishonest practice.

Course:
 Degree:
 Date:
 First and Last Name:
 ID or Passport Number:
 Student ID:
 Signature:



National ID, Passport

The teacher must provide the [PDF file](#), in case the student has a printer.

In the case of assessment activities in which the student must use an iPad or tablet, for example to develop a certain problem in which mathematical, chemical or other formulas have to be written, the outcome of that activity can be uploaded as an "Assignment" in Aula Global (Moodle).

Synchronous assessment activities must use video surveillance, as explained in item 3.5.

4. Other aspects to be considered

There are other aspects that also help to discourage dishonest behavior.

4.1 Various exam models

Generating several exam models hinders dishonest behavior. This applies to both quizzes where the questions are open-ended questions (e.g., essays), and quizzes where the questions are closed-ended questions (e.g., multiple choice). It is possible to prepare question banks so that the quiz each student receives is generated automatically and randomly. Therefore, the questions will be different for each student. In addition, in the case of using multiple choice questions, the answers can be randomized, so that the answers to each question appear in a different order for each student. This can be done in Aula Global (Moodle).

4.2 Time management

Time is an important factor when taking an exam. The longer the time, the greater the chance of dishonest behavior by some students. Even if the teacher monitors the student through Google Meet or even if the student's work environment is blocked through the "Respondus LockDown Browser" it will be very difficult to avoid that the student may use additional documentation. It cannot be avoided, therefore, that the exams will be ultimately "open book" exams, i.e. with the use of books and notes. The reduction of the time to complete the exam minimizes the possibilities of consulting additional documentation.

If there are 4 questions in a quiz for the students to develop their knowledge on a certain topic, then it is more advisable that each question is set up with a specific time to be answered, rather than setting up the 4 questions together over a longer period. It may even make sense to get the maximum score without having answered all the questions, if the time is very tight. The time should be carefully calculated to ensure that the exam is fair. It is advisable that some of the teachers take the exam beforehand to better calculate the appropriate time to complete the exam.

4.3 Evidence record

It is important to have evidences of the student's performance in the assessment activities. In the case of a written exam, the evidence is in the paper where the student did the exam. In the case of an essay submitted to Aula Global (Moodle), the file with the essay is available. In the case of a quiz in Aula Global (Moodle), the student's answers are stored in Aula Global (Moodle). In the case of online surveillance, it is not possible to record the session. In the case of individual exams by videoconference it is possible to record the session so that the evidence is available in case of student requests to review his/her exam. The joint instruction of the Secretary General and the Vice-Rector of Studies for the custody and management of the recordings of the oral exams issued on 24 March 2020 details this issue.

4.4 Importance of ethical behavior and information to provide to the students on data protection

Given that unethical behavior may occur more frequently in an online environment, it is especially important to remember at the beginning of each assessment activity the [Instruction](#) of the Vice-Rectors of Studies and of Students, Social Responsibility and Equality on the Legal Regime and Disciplinary Procedure applicable to UC3M students in academic evaluation processes and the sanctions that can be imposed in the event that students commit any of the established infractions. More information about regulations and declarations of an ethical nature are available in the following [link](#). It is also essential to inform about the conditions of recordings and video surveillance.

Please see below the information to provide the students in each type of assessment.

4.4.1 Oral exams

When starting the recording, the teacher must include the image available [on this link](#). This image can be shared in Google Meet using the button “Present now” (right bottom side of the screen). The teacher must also read the following statement:

The students are informed that the session of the exams is going to be recorded. More information about data protection available in Annex II on the *Evaluation guide* circulated via email and available on <https://www.uc3m.es/uc3mdigital/en/covid19/estudiantes>.

4.4.2 Oral presentations

When sending the invitation to the presentation, whether this is going to be recorded or not, the teacher must include the following text:

This exam is going to be monitored and surveilled online by the instructor in order to verify the student identity as well as to ensure the evaluation rights and to support the students during the process.

The information is available on the Annex II in the *Evaluation guide* circulated via email and available on <https://www.uc3m.es/uc3mdigital/en/covid19/estudiantes>.

Moreover, if the presentation is recorded

Besides the details above, when starting the recording, the teacher must include the image available [on this link](#). This image can be shared in Google Meet using the button “Present now” (right bottom side of the screen). The teacher must also read the following statement:

The students are informed that the session of the exams is going to be recorded. More information about data protection available in Annex II on the *Evaluation guide* circulated via email and available on <https://www.uc3m.es/uc3mdigital/en/covid19/estudiantes>.

4.4.3 Synchronous assessments: quizzes and exams with paper and pen

They must include the following text in their description:

**DATA PROTECTION, BEST PRACTICES AND ETHICAL BEHAVIOR
IN ONLINE ASSESSMENTS**

This exam is going to be monitored and surveilled online by the instructor in order to verify the student identity as well as to ensure the evaluation rights and to support the students during the process.

The information is available on the Annex II in the Evaluation guide circulated via email and available on <https://www.uc3m.es/uc3mdigital/en/covid19/estudiantes>.

Controller: Universidad Carlos III de Madrid

Identification: Online assessment of students

Purpose: Development of student remote assessment using online technologies and monitoring of potential illegal or fraudulent actions. The processing may include the recording of the online assessments as evidence for the following purposes:

- a) the review of grade processes
- b) the accreditation and evaluation of university degrees and programs

Rights: Access, rectification, and erasure of data, data portability, restriction or objection to data processing. Contact dpd@uc3m.es

Additional info and contact: Please see the detailed information on data protection at <https://www.uc3m.es/protecciondedatos>

The principles of [Ethical Behavior](#) and the statements in the [Best Practices Guide](#) for UC3M students, **must be respected in every assessment**, both on campus and online.

It is important to remind that **copying during the assessment, using third-party sources** or **using non authorized materials** will imply as a penalty that the subject, in the corresponding academic year, will appear as FAILED both in ordinary and extraordinary calls, thus losing any enrollment rights and not being able to request waiver or cancellation.

Any **identity fraud** or **unauthorized use of electronic devices** during the assessments, will be considered as a serious misconduct that might lead to a temporary or definitive expulsion of the university.

Any fraud during the assessment will be subject to penalty according to the statements included in the [Instruction](#) on Legal Regime and Disciplinary Procedures applicable to students from Universidad Carlos III de Madrid with regards to academic evaluation processes.

By accessing the quiz, the student acknowledges to be aware, to know and to accept the required conditions to do the exam.

4.4.4. Violation of the ethical behavior

If any teacher discovers any inappropriate behavior, it will be possible to contact the student or group of students involved.

Non-compliance with the above rules or with the teacher's indications in relation to the correct development of the assessment activity will result in:

1. In those cases where it is accredited that a student has incurred, when taking the exam, in a situation of fraud that prevents the teachers from exercising

their power to verify the knowledge, a FAIL(0) will be recorded in the grade of the student, in accordance with the agreement of the Board of Directors of 25 September 2002, and without prejudice to the disciplinary responsibility that the student may have incurred with such action.

2. In those cases in which, for reasons attributed to the student, his or her identity cannot be verified, nor the authorship of the exam at the request of the teacher, the exam, to the extent that it could not be carried out with the due guarantees for the educational system, will be considered as not carried out and, therefore, will be qualified as NOT PRESENTED, without prejudice to the provisions of section 4.6 of this guide.

4.5 Combination of types of assessments

Taking into account the above mentioned tools and aspects, several types of assessments can be designed which in turn could be combined with each other. In other words, an exam could consist of a short individual video conference per student with Blackboard Collaborate plus a quiz in Aula Global (Moodle) with online surveillance through Google Meet.

4.6 Need for a plan B

The assessment activities designed by the teachers may fail due to multiple technical issues. It is necessary to have an alternative for those students who have not been able to take the assessment activities designed by the teachers in the established time and manner due to technical problems beyond their control. Plan B could consist of an individual oral exam with each student who claims to have had technical problems. Students should be advised of the existence of a plan B for their peace of mind in the event that they experience technical problems during the exam. Ideally, Plan B could be implemented on the same day of the regular exam.

4.7 Students with disabilities and specific educational support needs

It is important to ensure that all students are evaluated on an equal basis, including those who are part of the Program of Assistance for Students with Disabilities and Special Educational Needs (<https://www.uc3m.es/ss/Satellite/ApoyoEstudiante/es/TextoMixta/1371215920222/Dis capacidad y NEE>). This may require certain adaptations to be made to assessment activities. This information and personalized instructions for each student, sent by the Program, must be consulted before conducting the assessment activities in order to, if necessary, evaluate possible options with the technical team.

One of these adaptations is the extension of the time to complete the exam. In case of the quizzes in Aula Global (Moodle), the time can be extended by establishing different durations for one or several users (see Annex IIIa).

References

Some of the sources consulted are listed here in order of publication.

- Manuel Castells Olivans, José Manuel Pingarrón Carrazón: “Reflexiones sobre criterios generales para la adaptación del sistema universitario español ante la pandemia del Covid-19, durante el curso 2019-2020”, Working Paper, Ministry of Universities, 5 April 2020.
- REACU: “Acuerdo de REACU de 3 de abril de 2020, ante la situación de excepción provocada por el COVID-19”, 5 April 2020.
- Madri+d: “Medidas extraordinarias propuestas por las Universidades de Madrid para la finalización del curso académico 2019-2020 ante la situación excepcional provocada por covid-19”, Fundación para el Conocimiento Madri+d, 13 April 2020.
- Manuel González, Ernest Marco, Toret Medina: “Informe de iniciativas y herramientas de evaluación online universitaria en el contexto del Covid-19”, Ministry of Universities, Office of the Minister, 14 April 2020.
- Manuel Castells Olivans, José Manuel Pingarrón Carrazón: “Conferencia General de Política Universitaria: Recomendaciones sobre criterios generales para la adaptación del sistema universitario español ante la pandemia del Covid-19, durante el curso 2019-2020”, Ministry of Universities, 15 April 2020.
- Ricard Martínez Martínez, Mónica Arenas Ramiro, José Pascual Gumbau Mezquita: “Informe sobre el impacto normativo de los procedimientos de evaluación online: protección de datos y garantía de los derechos de las y los estudiantes”, CRUE General Offices, 15 April 2020.
- CRUE Spanish Universities Intersectoral Working Group: “Informe sobre Procedimientos de Evaluación no Presencial. Estudio del Impacto de su Implantación en las Universidades Españolas y Recomendaciones”, CRUE Docencia, CRUE Secretarías Generales, CRUE TIC y CRUE Asuntos Estudiantiles, 16 April 2020.
- ANECA: “Estrategia de la ANECA para el aseguramiento de la calidad de la enseñanza virtual”, 17 April 2020.
- Community of Madrid: “Medidas de atención a los alumnos ante la crisis sanitaria del coronavirus”, Vice-council of Science, Universities and Innovation, 21 April 2020.
- Dulce M^a García Mella, Carlos A. Gómez Otero y 15 autores: “Guía sobre la protección de datos personales en el ámbito universitario en tiempos del COVID-19”, Data Protection Delegates Working Group, CRUE Spanish Universities, 22 April 2020.
- Carles Sigalés, Àngels Fitó, Jordi Riera, Josep Maria Serra, Santiago Gassó, Amelia Díaz, Sara Moreno, Francesc Giné, Domènec Puig, Joan Ripoll y Josep Corcó: “Documento de trabajo sobre la evaluación universitaria no presencial”, CPOA-CAAE Working Group, Consell Universitari de Catalunya, Generalitat de Catalunya, 22 April 2020.
- AEPD: Informe 0036/2020, Agencia Española de Protección de Datos, 8 mayo 2020.

Annex I: Google Meet

Google Meet is the video conferencing solution integrated into the G Suite platform. It is possible to use the corporate teacher account to create rooms in exams for support and surveillance for up to 250 participants, where the teacher can project his/her screen or share a presentation with information for the examinees. Rooms can also be created for video exams. The teacher must manage Google Meet sessions using his/her institutional account.

Google Meet also has a common chat for all attendees to send or receive written information. It is not possible to create private chats or specific chats for subgroups.

A full view (Grid) of all attendees can be activated by using the Chrome browser and an [extension](#), for example to see many students on screen in case of exam support and surveillance (see below).

It is possible to use a virtual whiteboard to explain things. Information about how to use a virtual whiteboard is available in the [website of the IT Services / Catalogue / Google Meet: Videoconferencing](#) (tab I want: Use Jamboard as a virtual whiteboard).

Google Meet is integrated with Google Calendar, so you can create videoconference rooms for each event from the Google Calendar itself.. You can also create video conferencing rooms directly from <https://meet.google.com>.

Students who do not have a webcam on their computer must connect using their mobile phone.

Information about the recordings

Teachers can record if they are signed in to their Google Account (like in Gmail). **Students cannot record**, although they can access recordings if these have been done in a room created from a **calendar event** (see the attached table for details). Please note that:

- Before starting the recording, students should be notified, both verbally and in writing in the chat, stating the following: "The session will be recorded and you can exercise your rights related to data protection by contacting the University's Data Protection Officer: dpd@uc3m.es. More information on the privacy policy can be found at <https://www.uc3m.es/protecciondedatos>".
- The video of the recording includes only the active participant or the shared screen. No other participants are shown on screen in other designs such as sidebars or grids.
- All participants will see a notice that there is an ongoing recording
- If the room is associated with a calendar event, once the recording is available, the video will appear as an attachment to the event itself so that all participants can easily view it.
- When the recording is available, the organizer will be notified by mail. Processing the recording requires some time, so it may take a while to receive the notification.

Depending on whether the videoconference is associated with a calendar event, or has been initiated from <https://meet.google.com> or <https://chat.google.com> website, some details vary:

	VIDEOCONFERENCE ASSOCIATED WITH GOOGLE CALENDAR EVENT	VIDEOCONFERENCE INITIATED FROM THE WEB (MEET.GOOGLE.COM) OR CHAT (CHAT.GOOGLE.COM)
Who can start / stop the recording?	Any participating PAS / PDI / Generic account. Students CANNOT record Meet video conferences.	
Where is the recording stored?	On the Google Drive of the person who created the event on Calendar, in the "Meet Recordings" folder	On the Google Drive of the person who created the event on Calendar, in the "Meet Recordings" folder
Who has access to the recording by default?	Whoever created the event on Calendar will be the owner on Google Drive AND All Calendar event guests with permission to view only, not download or share with others. Neither other UC3M users nor guests to the event who do not belong to the event will be able to access the recording. To share, you must go to Google Drive and explicitly share the video with those people.	Whoever created the event on Calendar will be the owner on Google Drive AND All Calendar event guests with permission to view only, not download or share with others. Neither other UC3M users nor guests to the event who do not belong to the event will be able to access the recording. To share, you must go to Google Drive and explicitly share the video with those people.
Who receives a notification in the email when the recording is available?	Whoever created the event on Calendar. AND Whoever initiates the recording (if it is someone else).	Whoever created the event on Calendar. AND Whoever initiates the recording (if it is someone else).

Instructions on how to record

Teachers are reminded that, when recording a session, they must always inform the students about it, and this information must also be recorded.

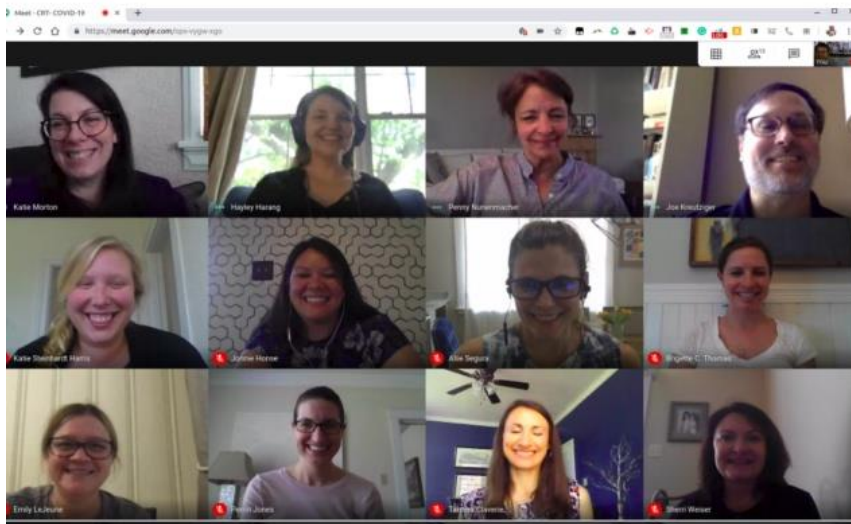
The following text is suggested: "The students are informed that the session is going to be recorded. More information about personal data processing is available on Annex II

in the online evaluation guide for students, sent via email and published on www.uc3m.es/uc3mdigital/covid19/estudiantes".

1. To record while in the room: click **More** **Record Meeting**.
2. Wait for the recording to start.
3. When you start or stop recording, other participants are notified.
4. When it is finished, click **More** **> Stop Recording**.
5. Recording of a meeting will also stop if all participants leave the meeting.
6. Click Stop Recording again to confirm the action.
7. Wait for the recording file to be generated and saved in the "Meet Recordings" folder on the Google Drive of the teacher hosting the session. The teacher hosting the session and the user (other teacher) who recorded the meeting will also receive a link to the recording via email.

Changing the screen layout and activating the grid view

Google Meet includes 4 views by default, but by using the Chrome **Google Meet Grid View** extension you can add the Grid View to see all participants at once.



To do that:

- Warning: if you had already installed an older version, please remove it first by right-clicking on the grid icon on the right top side of the Google Chrome browser.
- Install the Chrome extension [Google Meet Grid View](https://chrome.google.com/webstore/detail/google-meet-grid-view/kklailfgofogmmdlhgmjgenehkjoioip/related?hl=en) (<https://chrome.google.com/webstore/detail/google-meet-grid-view/kklailfgofogmmdlhgmjgenehkjoioip/related?hl=en>)
- When you access a video conference, a new grid button will appear in the upper right corner. Click on it to turn the grid view on/off.
- Clicking on this button will allow you to configure other plug-in options such as highlighting the participant who is speaking or showing himself in the grid.

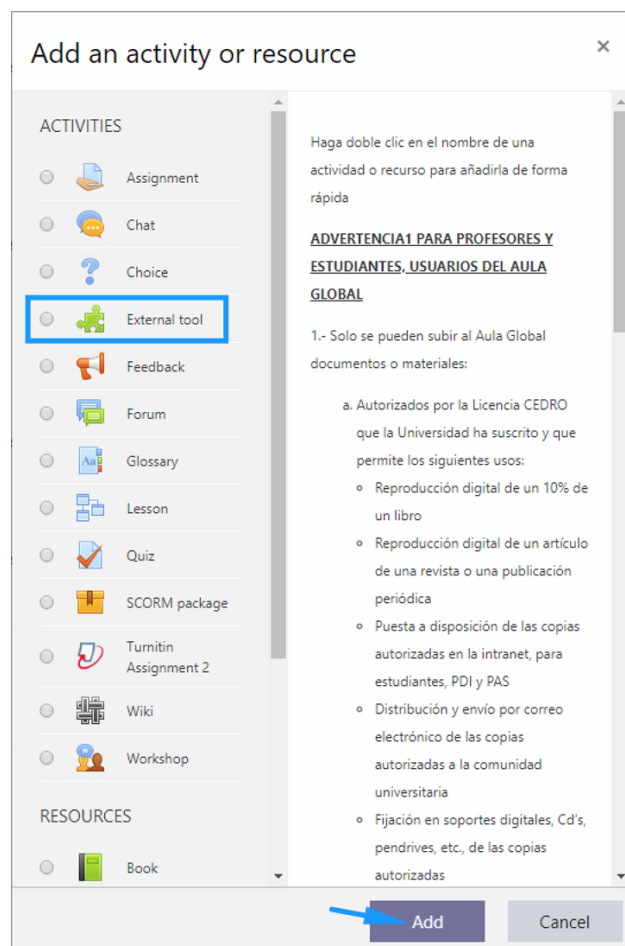
Note that this view is local to your computer. Other participants must also install the plug-in and select this view in order to experience it.

Annex II: Setting up Blackboard Collaborate in an assessment activity

Using Blackboard Collaborate as a support chat for assessment activities

Blackboard Collaborate becomes an ally of the teacher when it comes to solving the questions or incidents that may arise during an exam. To do this, the exam can have a Blackboard Collaborate room associated to which students can enter before starting their exam. This room should be prepared and configured beforehand.

We will create the Blackboard Collaborate session from our course in Aula Global, just as it has been done over the last few weeks for online teaching. This way students will be perfectly identified with their real first name and last name in Blackboard Collaborate.



Adding a new External tool to 8

Expand all

General

Activity name

Preconfigured tool + @ x

Select content

Tool URL

We will click on the link and access the Blackboard Collaborate environment where we will configure the new session we are creating for the communication with our students during the exam. It is important that **Guest Access** is unchecked and that we correctly set the start and end of the session to match those of the exam.

Exam Room Communication

Get secure link

Anonymous dial in:

34911235756 PIN: 598 111 1695

Dial In

Guest access

Event Details

Start

4/29/20 4:33 PM

End

4/29/20 5:33 PM

No end (open session)

Repeat session

Early Entry

15 min before start time

[Provide a description](#)

Event Details

Session Settings

Default Attendee Role

Participant

Recording

Allow recording downloads

Anonymize chat messages

Moderator permissions

Show profile pictures for moderator only

Participants can:

Share audio

Share video

Post chat messages

Draw on whiteboard and files

Enable session telephony

Allow attendees to join the session using a telephone

Private Chat

Participants can only chat privately with moderators

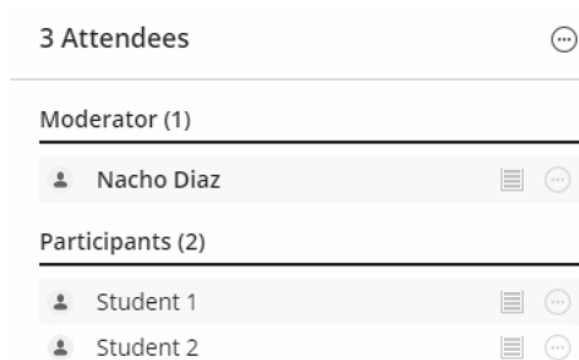
Moderators supervise all private chats


Large scale session (250+)

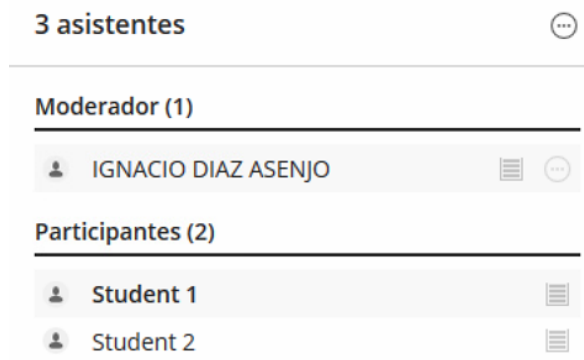
Allow 250+ attendees to join

Delete Save

Let's assume a scenario where we have a moderator, the teacher who created the session, and two students with the participant role. In this case the moderator in the list of attendees could see a screen like the one shown below.



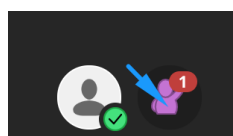
Each of the students would see something similar to the screenshot shown below. If we look closely, the two listings differ only in that students only see the icon  to the right of the moderator, and in the moderator's listing this icon appears to the right of all users.



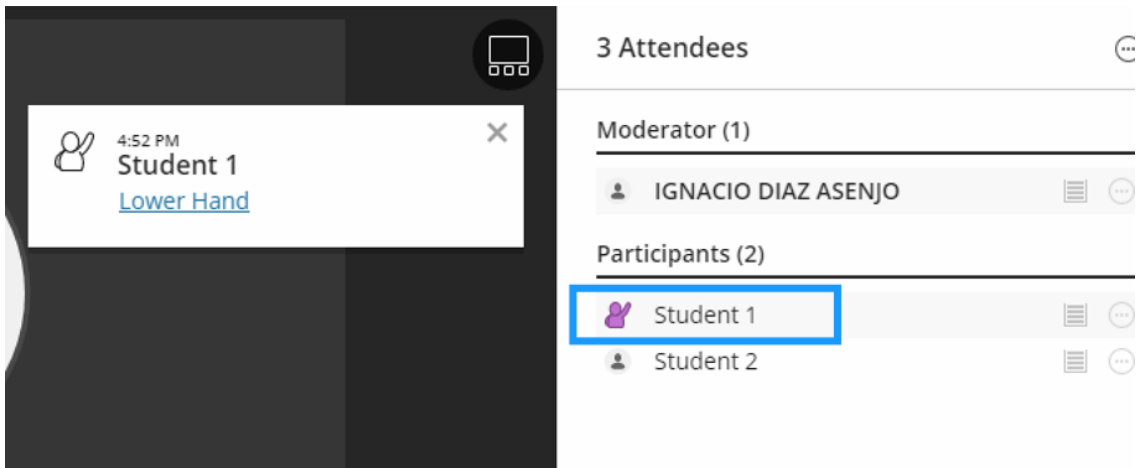
This is because students will not be able to initiate private conversations with each other.

Students will be able to write in the global chat, and anything written in the global chat will be seen by everyone, and the teacher can warn or sanction the students if they comment out loud on any results. This would be equivalent to someone shouting out a result in the middle of a test.

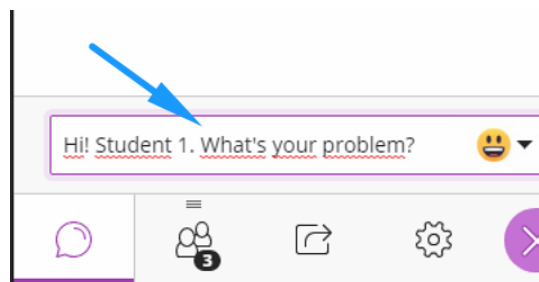
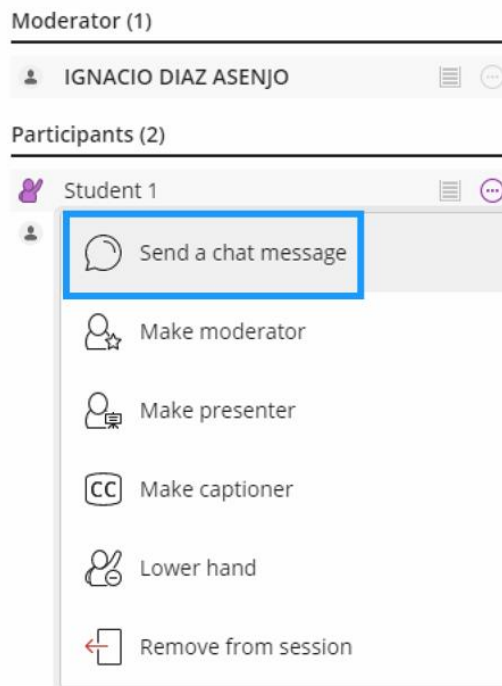
When a student has a question, all he or she has to do is to raise his/her hand clicking on the corresponding button.



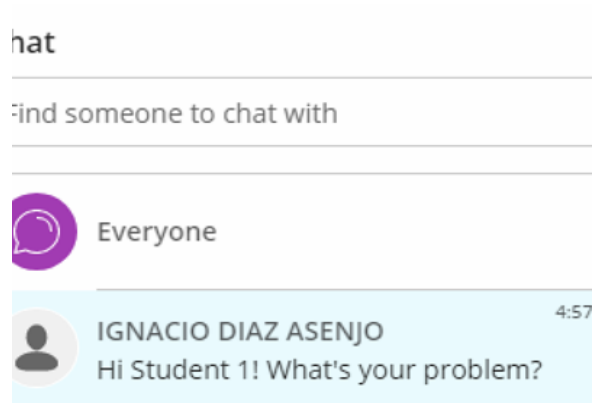
At this point the teacher will see which of the students require assistance in the list of attendees. To start a private conversation with him/her, the teacher will go to the student list and locate the student.



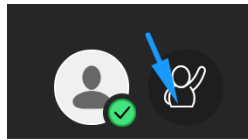
By clicking on the wizard controls icon, the teacher can talk privately with that student, in this example the "Student 1".



Once the message has been sent to Student 1, he or she will be able to view the message in his/her chat area as well as receive a pop up message in the central window in Blackboard Collaborate.



Once the Student is being assisted by the teacher, he or she will be able to lower his/her hand.

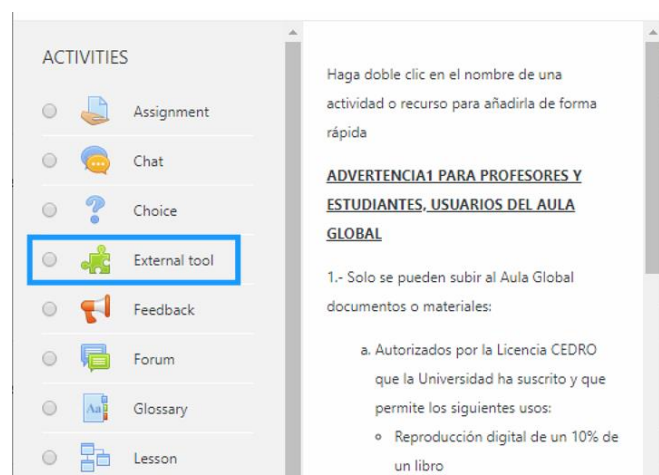


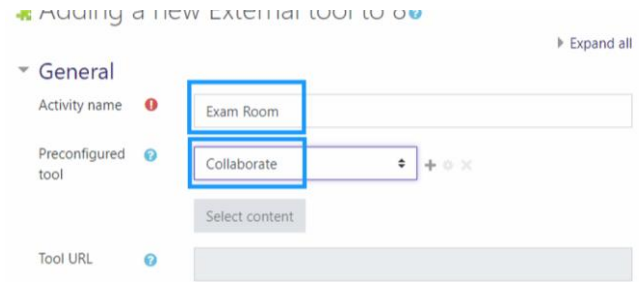
The teacher can make a comment in the global chat in case a clarification needs to be done for all the students present in the exam.

Using Blackboard Collaborate for oral exams (individually or in groups)

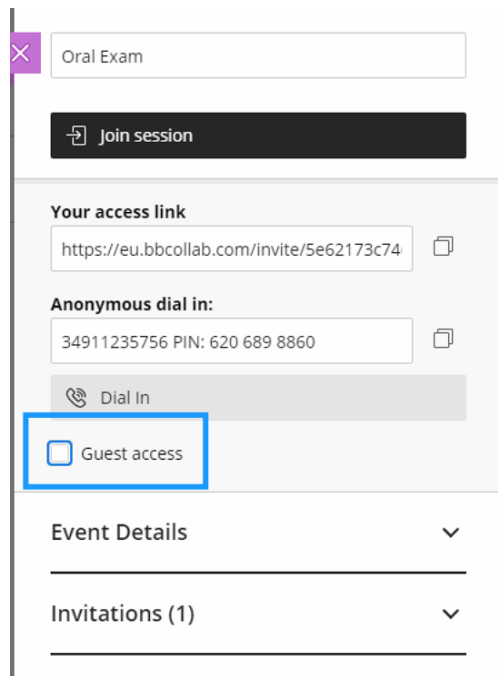
A Blackboard Collaborate room could be created to do oral exams with students, or to present the work done for an assignment.

From Aula Global we will create an External Tool activity, since we need the students to access the session perfectly identified with their real names.





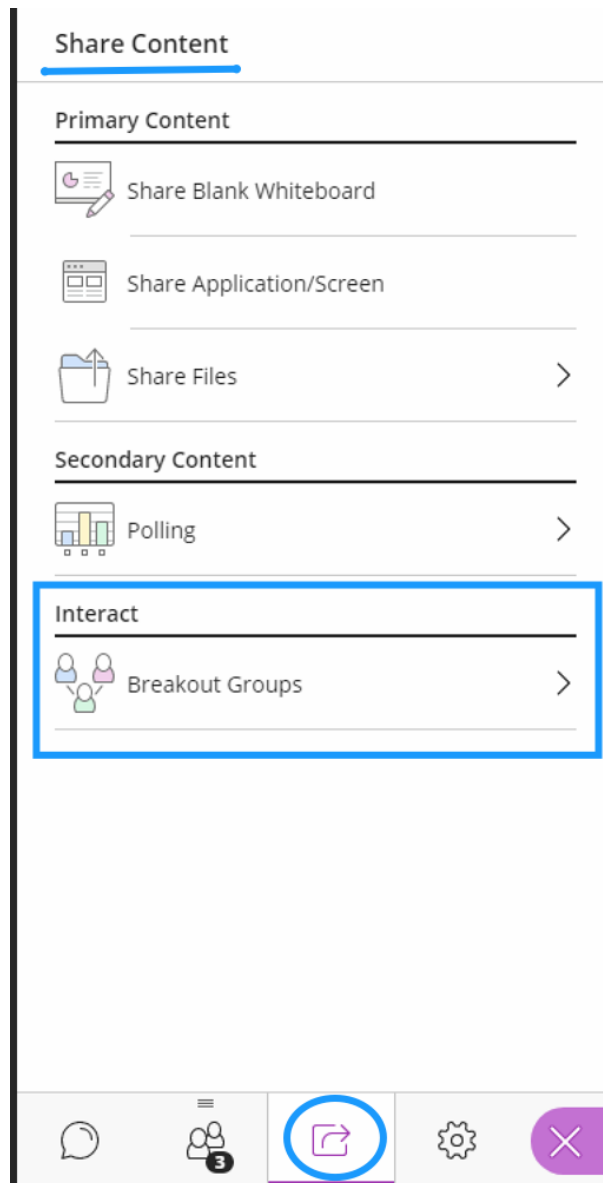
We create the room and we do not activate "Guest Access".



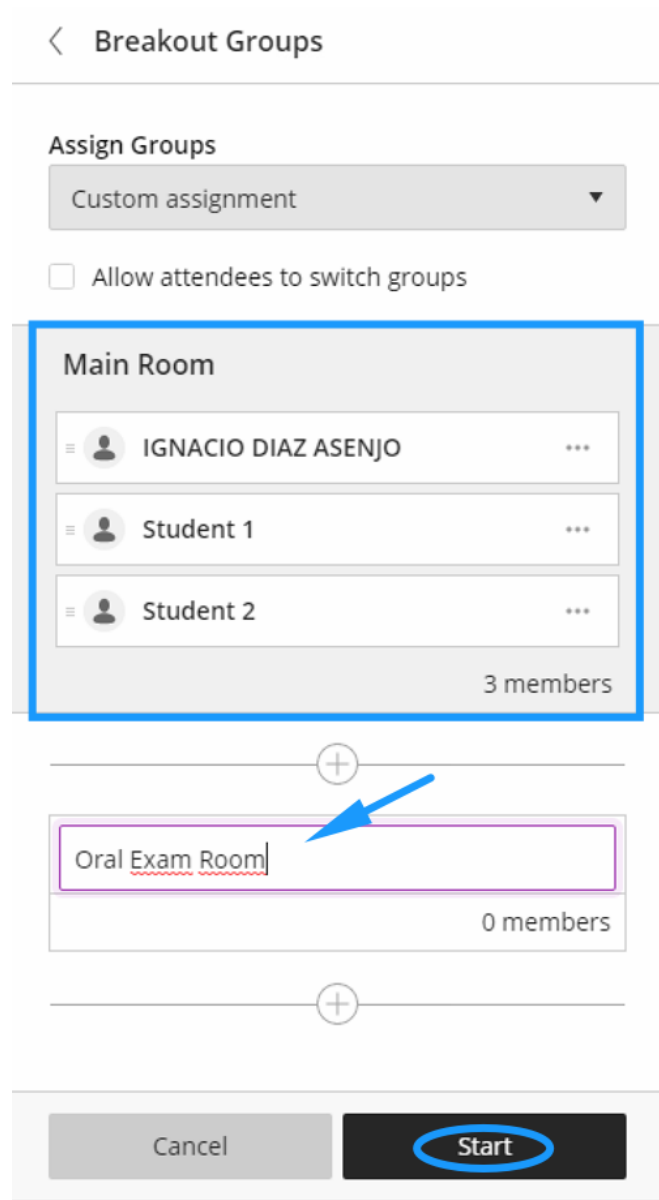
Using the **Breakout Groups** functionality we could simulate a private room where we find ourselves interacting with one or several students. Other students wait their turn in the main room. It can be interpreted as if we were in the office and we were calling the students who are waiting in the corridor.

In these cases, it is advisable to organize shifts (to quote them in time slots) so that not too many students are waiting, and so that they do not have to wait long either.

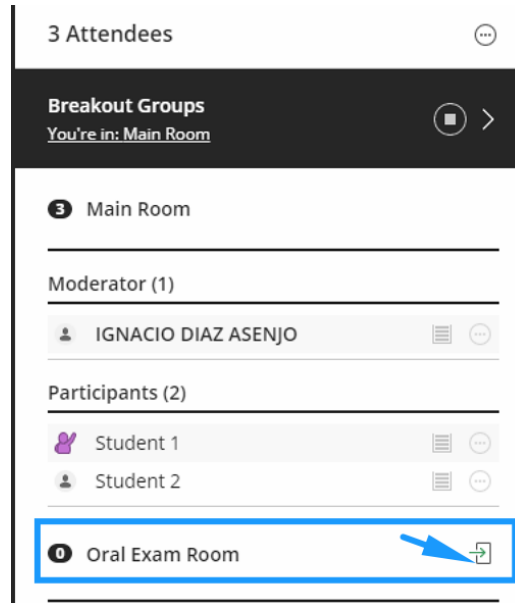
Within our Blackboard Collaborate room, we go to “Share Content”, and then we click on “Breakout Group”.



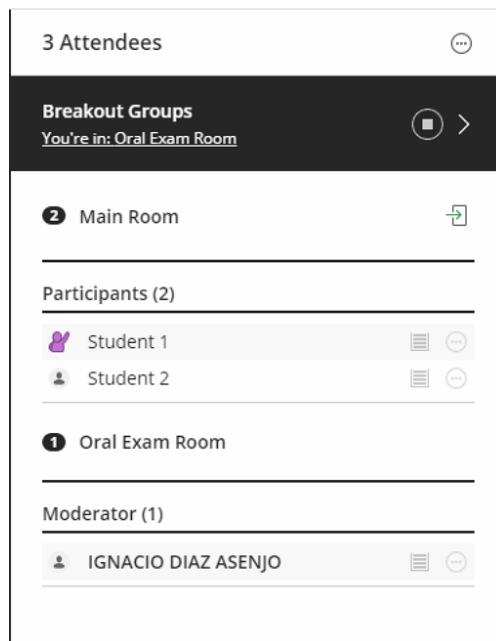
Once inside, two groups are created by default, called Group 1 and Group 2. We delete one of them and rename the only one left, for example, to Oral Exam Room or My Office. In this way, Blackboard Collaborate will have on one side a general room where the students accessing the session will be located, and a small private room where the teacher will meet with a student or a group of students.



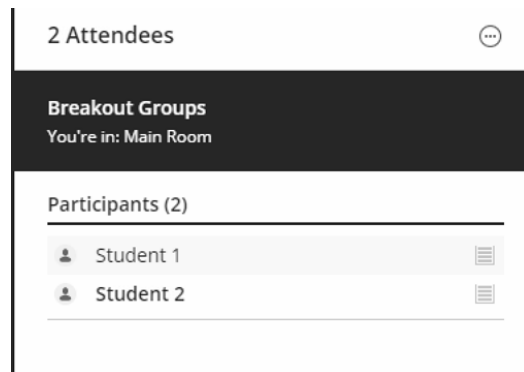
This private room is generated once we click on the **Start** button. Once the teacher starts this room, a screen like the one shown below will appear.



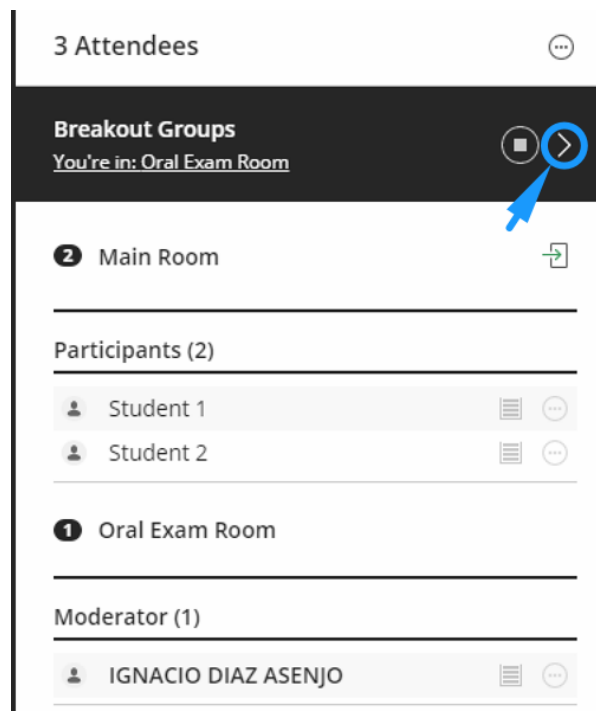
We have a main room where the teacher meets the students who access the room from the Aula Global link. This main room is like a waiting room, the corridor outside the teacher's office. By clicking on the icon represented by a green arrow, we will access the Oral Exam Room (the group we have created).



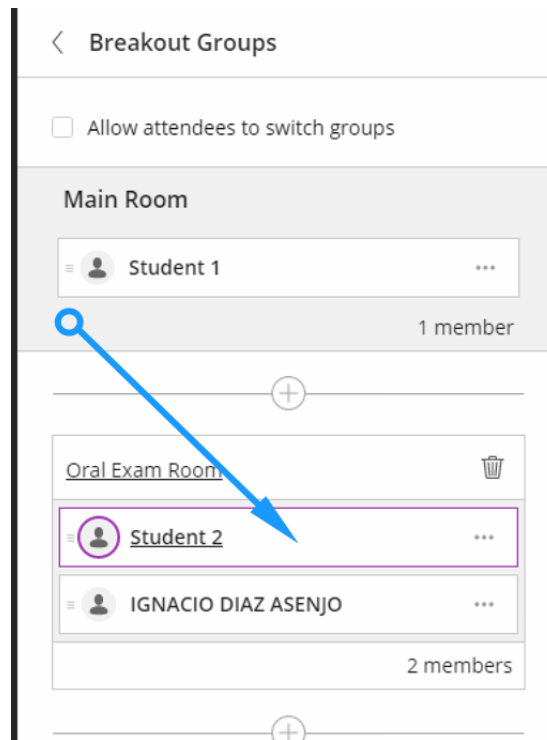
Once inside, the teacher disappears from the main room, and leaves the students alone waiting. The following image shows what a student would see.



The next thing the teacher will do is to add and remove the students with whom he or she wants to interact. To do this, the teacher should click on the arrow as shown in the figure.

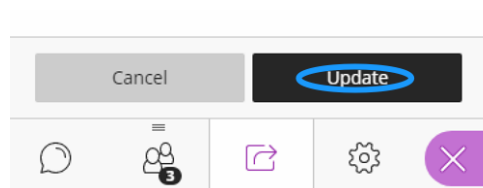


And through a drag-and-drop operation, the teacher will add the students to the Oral Exam Room, It is like getting the students into the teacher's office, and closing the door.

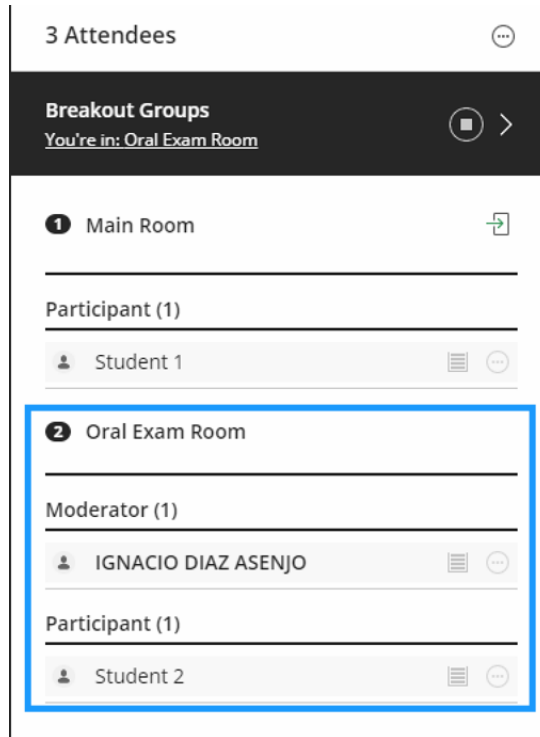


In this case, we drag Student 2 and drop him/her into the Oral Exam Room

And we click on the Update button

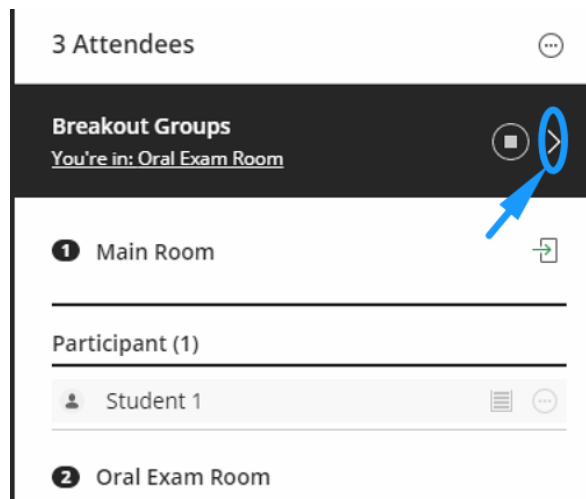


This way we would be in the private room with Student 2 while Student 1 (and the rest of the students, if any), would be waiting in the main room.



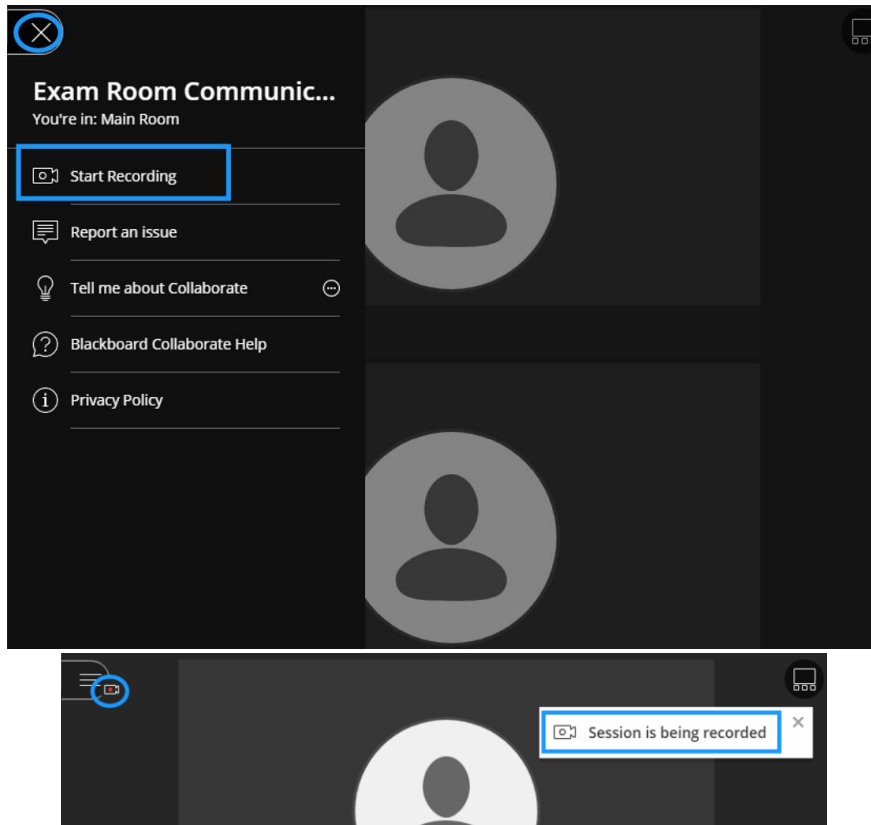
At this point, the interaction between teacher and Student 2 would be the normal one between two users who are alone in a room. The student could turn on his/her camera and microphone, to talk to the teacher or he or she could share his/her screen in case they have to show some work.

When the teacher has finished assessing the student, the teacher can return to the group management screen, drag this student back to the Main Room (the student leaves the office), and drag the new student and drop him/her into the Correction Room (the student moves from the corridor to the office).

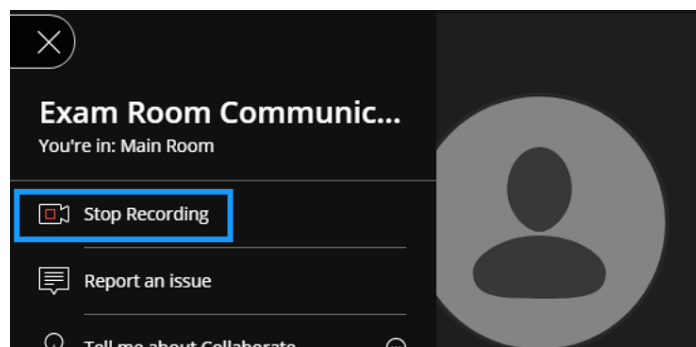


You can record your sessions with Blackboard Collaborate by clicking on the top left and clicking on the "Start Recording" option. See the table of "recording with Blackboard Collaborate" below in this annex.

Before starting the recording, students should be notified, both verbally and in writing in the chat, stating the following: "The session will be recorded and you can exercise your rights related to data protection by contacting the University's Data Protection Officer: dpd@uc3m.es. More information on the privacy policy can be found at <https://www.uc3m.es/protecciondedatos>".



Once the teacher wants to finish the recording, he or she must use the "Stop Recording" option to stop the recording. The recordings are associated to the teacher's room and will be available after a certain time (not immediately) when the system has processed and generated the link where the recording is located.



Recordings with Blackboard Collaborate

	VIDEOCONFERENCE CREATED FROM AULA GLOBAL	VIDEOCONFERENCE CREATED FROM "SALA VIRTUAL"
Who can start / stop the recording?	Only the moderator.	
Where is the recording stored?	On the platform itself, within the space of the user who starts the recording in the "Recordings" menu.	
Is it possible to record the sessions of the groups within a session?	No, this is not possible.	
Who has access to the recording by default?	As soon as the recording is available, teachers and students belonging to the group in Aula Global will have access to the recording. The recording can be shared with others as it is a public URL.	As soon as the recording is available, teachers and students belonging to the group in Aula Global will have access to the recording. The recording can be shared with others as it is a public URL.
Can the recording be downloaded?	Not by default, but the owner can change this in the room settings.	

Annex IIIa: Aula Global: assignment submission with Turnitin

Assignments are activities designed so that students can send files through Aula Global. They can be of two types, although only the second of them allows to ensure academic integrity through anti-plagiarism control.

Assignment

In the activity called Assignment, the student sends online text or a file (not necessarily a text file) for the teacher to review and assign a grade. It is not possible to do anti-plagiarism control through Turnitin if this type of activity is chosen.

Turnitin Assignment

For this reason we recommend using the activity called "Turnitin Assignment", in which the student sends a document to be analyzed by Turnitin. This tool can only process the student text, which will be compared with articles and chapters from the main publishers, as well as with content available on the Internet; if the option "Check against stored student papers" is also enabled, Turnitin will review possible similarities with other submissions. The teacher may examine the Turnitin report and grade the student accordingly in the "Gradebook".

The Turnitin Guide in Aula Global is available at this link: <https://uc3m.libguides.com/Turnitin/inicio>. It is very useful, especially for everything related to its configuration, which is key to avoiding possible incidents and ensuring proper interpretation of results.

Annex IIIb: Aula Global: creating quizzes

Aula Global allows the creation of open-ended and closed-ended questions in quizzes, both asynchronous and synchronous (see sections 3.4 and 3.5 of this guide), which can be combined with two fundamental factors:

- Randomization: aimed at creating multiple models for a quiz so that each student receives a different model (section 4.1)
- Time control: aimed at restricting the time the student can use to complete the quiz (section 4.2)

More detailed information is provided in the Aula Global manual for teachers (section 5.2): <https://aulaglobal.uc3m.es/mod/resource/view.php?id=2473600>.

Annex IIIc: Aula Global: good practices for the creation of multiple choice questions provides recommendations for proper wording of stems and alternatives in multiple choice questions.

How is an exam in Aula Global? Quizzes and question banks

Exams in Aula Global are based on the two essential components:

- The **question bank**, which consists of a collection of open-ended and/or closed-ended questions
- The **quiz**, which consists of the presentation of questions from the question bank to the student.

First a question bank needs to be created with several (types of) questions. Then, the quiz is generated from these questions. When student take an exam, they do not access the question bank, but the quiz.

How to create a question bank?

The question banks are created from the side menu: *Administration > Course Administration > Question Bank*. You can start by creating a "category", i.e. a kind of folder that serves to group question types or questions on a topic or lesson. To do this, select "Categories" and an editing window will be displayed for you to name the category. You can create as many categories and subcategories as you need to organize your questions. If no categories are created, all questions will be stored in the default root folder. Questions can be moved and copied from one category to another.

It is advisable to create question banks with more questions than those which will be shown in the quiz in order to allow different quiz models through randomization in the presentation. We will be able to add the questions randomly from the configuration of the quiz, and we will be able to reinforce the randomness even more if each question is extracted from a different category. We should be careful not to repeat questions in different categories for the same quiz, as it could be the case that a student could receive two identical questions in his/her quiz.

In addition, the teacher can “shuffle” the order of the answers. When the quiz is created, the option “*Question behaviour*” > “*Shuffle within questions*” can be enabled in its settings for this purpose.

What are the most common types of questions? What are they for?

The selection of the question types should be based on the specific course and on the knowledge and skills to be demonstrated by the student in the exam. The main types of questions are listed below, as well as their potential usefulness for assessment. Of course, different types of questions can be combined in the same quiz.

It is very important to note that there are two initial fields in each question setup: the *question name* and the *question text*. The *question name* identifies the question in the question bank, and is something that only the teacher sees. The *question text* is what students will actually see when the question is included in their quiz, and can include pictures, graphics, videos, etc.

QUESTION TYPE	WHAT IS IT FOR?
<i>Multiple choice</i> (one or more correct answers to a question). Automatic assessment.	It serves to assess the acquisition of basic conceptual knowledge. A multiple choice question may consist of a concept and the answers in its definitions, or conversely, a definition and various concepts. It is more challenging if there is more than one correct answer.
<i>True/false</i> (only one correct answer to a statement). Automatic assessment.	It serves to assess the acquisition of basic conceptual knowledge by contrast between only two options. It's not very challenging.
<i>Numerical</i> (the answer is a number). Automatic assessment.	Applied to calculations, it serves to assess if the student has reached to a correct solution from a reasoning. In other types of questions, it could also be used to assess if the student identifies a correct figure or a range of figures.
<i>Calculated</i> (numerical response to a calculation proposed by the teacher) Automatic assessment.	Applied to calculations, it serves to assess if the student has reached to a correct solution from a reasoning. It differs from the numerical type in that this type of question is calculated internally by means of a formula introduced by the teacher, and whose values may vary in each attempt.
<i>Matching</i> (the answer relates pairs of options). Automatic assessment.	It serves to assess the acquisition of relational conceptual knowledge. Concepts can be associated with each other or definitions with concepts, for example.
<i>Essay</i> (free textual response). It must be manually assessed.	It serves for the student to write a text to respond to a question or justify a statement. The teacher determines the length of the answer and whether or not the student can attach files.

There are other types of questions, of great interest for assessing students' knowledge and skills, but they require more experience in the use of Aula Global. Sometimes their configuration is complex and it is convenient to test that the questions work correctly before launching them in the quizzes.

An interesting type of question is “*drag and drop onto image*”, which allows the use of graphic resources so that the student assigns text labels or other images to them.

How to take advantage of the different types of questions?

Multiple choice, true/false, matching. The knowledge that the student can demonstrate in this type of questions is limited, and not by making the questions more difficult they will be better assessed. One way of approaching them is indirectly, through a statement that asks the student to reflect on what he or she has learned; this can be enriched by asking the student to read a text first or to interpret graphic or audiovisual information provided in the statement.

These questions can also be combined with the essay so that the student can justify his or her answer; in this way, he or she can get the total score if the answer is correct, but then get a lower score if he or she does not know how to argue properly. Or, conversely, he may get the answer wrong, but his justification will allow some scoring.

Numerical, calculated. These types of questions only serve to know if the student knows the correct answer, although he or she may be unable to adequately elaborate on the reasoning that leads to it. To find out, these types of questions can be combined with the essay.

Essay. This question is very useful for students to respond briefly and concisely to a question posed by the teacher. In addition, since it is possible to attach files, this question can be used to ask the student to summarize his or her answer, developed further in the attached document. If the teacher wants to evaluate a greater capacity for development, it is best to create an “Assignment” in Aula Global instead of using this type of question.

As noted above, the essay can be used to argue or justify answers to simpler types of questions, such as *multiple choice* or *true/false*. In the case of *numerical* and *calculated* questions, the essay gives the student the opportunity to show his or her knowledge, even if it is not enough to find the right solution after trying to solve a problem.

Questions are subject to a penalty if the answer is incorrect. It is also possible to include images or other resources that the student should use to answer the questions. It is also possible to include feedback, either general (independent of the student's response) or specific (dependent on the student's response).

How to create a quiz?

Once we have created our bank of questions with their corresponding categories and subcategories, the time has come to create the quiz, that is, the actual exam that the student will see.

In Aula Global the quiz is added like any other "Activity", in two phases:

1. **Adding the quiz.** This includes creating the structure and configuring the different features of the quiz, including the grades. It also includes a level of randomization, which we will call Level 3 below. The modification of any of these parameters is done from *Administration > Quiz administration > Edit settings*.
2. **Editing the quiz.** This includes adding questions from the question bank or creating new questions from scratch. The modification of any of these parameters is done from *Administration > Quiz administration > Edit quiz*.

Automatic submission

We recommend that teachers set up the quiz so that it is sent out automatically when time is over. This way, if a student forgets to send it in before the time expires, Aula Global will do so automatically. This is configured in *Administration > Quiz Administration > Edit Settings*, under the option "Timing" > "Open attempts are submitted automatically".

Presenting quizzes: pages and sections

Teachers can also determine how to present the quiz to students in Aula Global. One possibility is to create several quizzes that are opened at different times, so that they work in blocks. Another possibility is to create a single quiz whose questions appear on consecutive pages, something that also allows to condition the navigation through the quiz.

The page configuration of the quiz is managed from *Administration > Quiz administration > Edit quiz*. Once the questions have been added it is possible to insert page breaks between two of them. In this way there will be several "pages", each with different questions, and each one in a different section with a different setup of the "shuffle" option. In order to do this it is essential to add "a new section heading" to the new page generated.

A quiz with several pages can be navigated freely or sequentially, a parameter that can be modified in *Administration > Quiz Administration > Edit Settings*. If "Sequential" is selected in *Layout > "Navigation method"*, the student, once he or she moves from one page to another, will not be able to return to the previous one to review his/her answers except for the last one; to avoid this, it is possible to add a "Description" question as a closing. They will be able to do so if the "Freely" option is kept.

Attempts

Teachers should take into account the configuration of the number of possible attempts in the quizzes. By default the attempts are unlimited. This option can be changed in *Administration > Quiz Administration > Edit Settings* under "Grade" > "Attempts Allowed", as well as it might be necessary to change the "Review options", in case more than one attempt is allowed, so that the student do not know if the first selection was correct.

How to configure the quizzes to increase their reliability?

In the configuration of the quiz we will be able to implement the two key elements already mentioned above: time control and randomization in order to have various exam models.

The timing is set up at the moment of adding the quiz or in *Administration > Quiz Administration > Edit Settings*, once the quiz has been created. It is used to determine not only the start and end time of the quiz, but also to define its duration. The activation of the time limit is optional, but highly recommended to avoid, if desired, that the student can consult materials during the exam.

The generation of different exam models is carried out by adjusting different parameters in the configuration of the quiz, where we can combine different levels of randomization:

1. **Level 1: order of questions in the quiz.** Within the edition of the quiz, in *Administration > Quiz administration > Edit Quiz*, you can check the option "Shuffle", which allows to randomize for each student the order of presentation of the different questions extracted from the question bank. It is also possible to create different "Pages", each one with different questions, by clicking on "Add page break" between questions, and each one of them with a different configuration of the option "Shuffle", for which it is essential to "Add" > "A new section heading" in the new page generated, as explained above. It is also possible to limit the navigation throughout the quiz in *Administration > Quiz administration > Edit settings*; to do so, select "Sequential" in "Layout" > "Navigation method". In this way, once the student has moved to the next page, he/she will not be able to return to the previous page to review his/her answers; if the "Freely" option is selected, he/she will be able to return to previous pages.
2. **Level 2: randomization of questions shown in the quiz.** Within the edition of the quiz, *Administration > Quiz Administration > Edit Quiz*, when clicking on "Add" we can select "A new question", "From the question bank" or "A random question". "A new question" allows us to create questions from scratch to take them "From the question bank", but in both cases we can only apply the first level of randomization to them. To be able to apply Level 2 we need to select "Add" > "A random question", which gives us the possibility to select a particular category from our question bank, so that the quiz will randomly choose the number of questions we want.
3. **Level 3: randomization of the order of answers to the questions.** This is done not in the edition of the quiz, but in *Administration > Quiz Administration > Edit settings*, we can select the option "Question behaviour" > "Shuffle within questions". To do this, you must have activated "Shuffle" in the order of the answers within the configurable feedback options in the corresponding questions.

If the teacher wishes, he or she can also use other complementary measures to increase the reliability of the quiz. These include the generation of a password so that only those who have received it can open the quiz. This is configured in *Administration > Quiz Administration > Edit Settings*, under "Extra restrictions on attempts" > "Password required".

An example

An example of a joint combination of Level 1, Level 2 and Level 3 would be as follows. Let's assume that we have created a bank of questions with 10 categories, with 10 different questions in each category (i.e. we will have 100 questions in total), each with 4 different possible answers. What can we do when creating the quiz?

Firstly, when creating the questions we can activate "Shuffle the choices", which will allow us to activate Level 3 in "*Edit settings*" in the quiz. If we use Level 2 randomization, we will have to add 10 random questions using the option "*Add a random question*", from the 10 different categories of the question bank, within "*Edit quiz*". Finally, Level 1 can come into play if in "Edit the quiz" we check the option "*Reorder the random questions*".

This way we will be able to create a quiz with these characteristics:

- The quiz has 10 questions that appear in a different order for each student.
- Each question on the quiz is randomly drawn from 10 possible questions.
- Each question shown in the quiz randomly presents the 4 possible answers.

The larger the question banks and therefore the greater the number of questions that can be randomized, the more assurance that students will respond to different quizzes.

How to adapt the quizzes to people with disabilities and specific educational support needs who need more time to complete a quiz?

When a quiz is set up, all its variables are set with the same values for all students enrolled in the course. However, it is possible to make custom modifications for individual students or even groups of students. This is very useful when we need to adapt the quiz for students with disabilities and specific educational support needs who require a longer response time.

To do so, just go to *Administration > Quiz Administration > User Overrides*. Click on "*Add user override*" to access the options you want to customize, such as the opening and closing dates of the quiz, the time limit to answer the quiz, or the number of attempts allowed.

Note that when the quiz is hidden, the system may give an error message when applying user overrides. This message and the error will disappear as soon as the quiz becomes visible to students.

Annex IIIc: Aula Global: good practices for the creation of multiple choice questions

Recommendations on the stems

1. Avoid vague stems, indicating the question to be asked clearly.

- Bad example:
 - Spain...
 - a) is located in Eastern Europe
 - b) * has a population of 47 million inhabitants
 - c) has a national border with Portugal and Italy
 - d) contains the highest mountain in Europe
- Buen ejemplo:
 - What is the current population of Spain?
 - a) 40 million inhabitants
 - b) *47 million inhabitants
 - c) 50 million inhabitants
 - d) 35 million inhabitants

2. Evitar los enunciados demasiado verbosos eliminando información irrelevante.

- Bad example:
 - Assuming that you own a company that is specialized in electronics retailing and that you have to decide what price to set for next month's sale of Dell computers, taking into account that the production cost is 200€ and the expected profit is 100€, and that according to current regulations you have to add 21% VAT, what retail price should this type of product have?
 - a) 300€
 - b) *363€
 - c) 400€
 - d) 500€
- Good example:
 - What is the retail price to be set for an item whose production cost is 200€, with a profit margin of 100€ and 21% VAT?
 - a) 300€
 - b) *363€
 - c) 400€
 - d) 500€

3. Avoid negative stems, and particularly double negation.

- Bad example:
 - Which of the following countries was never part of the Soviet Union?
 - a) Estonia
 - b) Armenia

- c) *Switzerland
- d) Azerbaijan
- Good example:
 - Which of the following countries was part of the Soviet Union?
 - a) Finland
 - b) *Estonia
 - c) Turkey
 - d) Greece

Recommendations on the alternative answers

1. If wrong answers are penalized, it is recommended to add an alternative such as "No answer is selected"

- This is important because in Aula Global, as in any other web application, the forms that allow to mark one option out of a variety of choices do not permit to leave all of them unmarked when one of them has already been selected. Therefore it is necessary to provide the student with the option to chose not to chose any answer; that is, to leave the question in blank.

2. Avoid the alternative "all of the above are correct".

- Bad example:
 - Which of the following is a currency used by a European country today?
 - a) pound
 - b) euro
 - c) krona
 - d) *All of the above are correct
- Good example
 - What is the currency currently used by the United Kingdom?
 - a) *pound
 - b) euro
 - c) krona
 - d) mark

3. Avoiding alternatives that are "more correct" than others just because they are more comprehensive

- Bad example:
 - What string instruments can be found in an orchestra?
 - a) violin
 - b) violin and viola
 - c) violin, viola and cello
 - d) * violin, viola, cello and double bass
- Good example:
 - Which string instrument in the orchestra has a lower pitch?
 - a) violin
 - b) viola

- c) cello
- d) *double bass

4. Avoid the "none of the above" alternative (especially if the system is configured so that the student receives the answers in random order).

- Bad example:

In what year was the first Spanish constitution approved?

- a) 1978
- b) None of the above
- c) *1812
- d) 1931

- Good example:

In what year was the first Spanish constitution approved?

- a) 1978
- b) 1865
- c) *1812
- d) 1931

5. Avoid overlapping alternatives.

- Bad example:

How many calories does olive oil have approximately (per 100 grams)?

- a) *800-900
- b) 700-850
- c) 850-1000
- d) 600-800

- Good example:

How many calories does olive oil have approximately (per 100 grams)?

- a) *800-900
- b) 1000-1100
- c) 300-400
- d) 600-700

6. Avoiding unrelated alternatives

- Bad example:

La Rioja is well-known for...

- a) being the Region with the smallest area in Spain
- b) hosting the popular celebration "San Fermín"
- c) having Galician as a co-official language
- d) *producing wines under the Rioja "Denominación de Origen"

- Good example:

What product characterises La Rioja?

- a) *Wine
- b) Olive oil
- c) Wheat

d) Oranges

7. Avoiding the implausible alternatives that are immediately discarded

○ Bad example:

Who completed the first round-the-world expedition?

- a) Cristiano Ronaldo
- b) José Luis Rodríguez Zapatero
- c) *Juan Sebastián Elcano
- d) Tom Hanks

○ Good example:

Who completed the first round-the-world expedition?

- a) Fernando de Magallanes
- b) Cristóbal Colón
- c) *Juan Sebastián Elcano
- d) James Cook

8. Avoid the bias in the selection of the longest answer

○ Bad example:

- a) What is a cell?
- b) A virus
- c) *The fundamental anatomical unit of all living organisms, usually microscopic, consisting of cytoplasm, one or more nuclei and a membrane surrounding it.
- d) An animal
- e) A fungus

○ Good example:

What kind of cell is a bacterium?

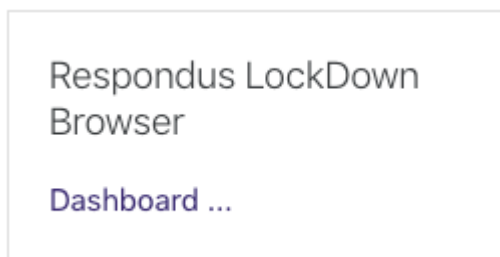
- a) Virus
- b) Eukaryote
- c) *Prokaryote
- d) Protozoa

Annex IV: Respondus LockDown Browser

Respondus is an "e-proctoring" tool that helps to increase the integrity of the quizzes in Aula Global (Moodle) by controlling/blocking the computer applications in the student's work environment during an assessment activity. Besides the configuration that we will have to do in a section of our course in Aula Global (Moodle) it will be necessary that the student downloads a special web browser that will control that the student does not access or use information and software that is not allowed.

How to use the LockDown Browser with a quiz in Aula Global

To access this tool, click on the "dashboard" link in the *Respondus* panel under the "course administration" panel.



Once you have entered the dashboard a new panel appears with video tutorials which are recommended to have a detailed idea of the use of the software.

About LockDown Browser

Welcome | Video Tutorials | Getting Started | Resources

Prevent Cheating During Online Quizzes

Don't show this page again

Continue to LockDown Browser >

The image shows a video player interface with a navigation menu at the top containing 'Welcome', 'Video Tutorials', 'Getting Started', and 'Resources'. The main content area features a video thumbnail with a play button and the title 'Prevent Cheating During Online Quizzes'. The thumbnail depicts a person at a computer with a red padlock icon, symbolizing security. Below the video player, there is a checkbox labeled 'Don't show this page again' and a red button labeled 'Continue to LockDown Browser >'.

Once we have seen the tutorial videos we click on "Continue to LockDown Browser". At this time, all the quizzes that we have defined in our course will appear. This type of control with Respondus can only be used within the quizzes of Aula Global (Moodle). In addition, a link with additional information appears at the top.

➔ New to Respondus Monitor proctoring? See the [Rapid Rollout Guide here](#). Find additional videos and guides using the About link above.

Quizzes ▲	🔒 LockDown Browser	👤 Respondus Monitor
▼ CUESTIONARIO UD1	Required	Required
▼ CUESTIONARIO UD2	Not Required	Not Required
▼ CUESTIONARIO UD3	Required	Required
▼ CUESTIONARIO UD4	Required	Required
▼ CUESTIONARIO UD5	Required	Required
▼ PRUEBA TUS CONOCIMIENTOS	Not Required	Not Required

For each quiz, the panel tells us whether or not the LockDown Browser is activated:

To activate the LockDown Browser the first thing we have to do is click on the quiz.



"Require Respondus LockDown Browser for this exam"

▼ CUESTIONARIO UD2

🔒 LockDown Browser Settings

Don't require Respondus LockDown Browser for this exam

Require Respondus LockDown Browser for this exam

Save + Close Cancel

Once activated, several configuration options appear:

LockDown Browser Settings

Don't require Respondus LockDown Browser for this exam
 Require Respondus LockDown Browser for this exam

Advanced Settings

Lock students into the browser until exam is completed [\[explain\]](#)
 Allow students to take this exam with an iPad (using the "LockDown Browser" app from the Apple App Store) [\[explain\]](#)
 Allow access to specific external web domains [\[explain\]](#)

Enter one or more web domains, separated by commas (e.g. algebra-ebooks.com,calculus-ebooks.com)

Enable Calculator on the toolbar [\[explain\]](#)
 Enable Printing from the toolbar [\[explain\]](#)

Of all the options it is important to highlight the one for allowed specific URLs. With this option the teacher can indicate URLs to which the student can connect during the exam. Other options included, for example, the possibility of using a calculator during the exam.

To finish the configuration process, the download address (URL) for the LockDown browser must be added somewhere in the course for the students to install it on their computers. It is important that ALL students download the browser from this URL and before the exam. Otherwise they will NOT be able to take the exam. However, if students enter an activity where the browser is used, they download link will also be shown automatically.

<https://download.respondus.com/lockdown/download.php?id=242125343>