Online Exam and Invigilation Technologies

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Overview

- This article covers the common technologies adopted by 2020-21 Ug exams with "self-arranged online invigilation".
- The suggestions in the following sections apply to the use of the technologies in general (i.e. not just for exams with"self-arranged online invigilation").

Additional resources

- **Recordings of the workshop series** (https://elearningconsultat.wixsite.com/e-assessment-series/videos) **on "e-Assessment (https://elearningconsultat.wixsite.com/e-assessment-series/session-details)"** (CUHK Login required to watch the recordings)
- Two slide decks prepared for the workshop session "**e-Assessment overview: Types, support, and their considerations** (https://www.cuhk.edu.hk/clear/new/2021-s1-05.htm)**"** in November 2020
  - e-Assessment Overview (https://www.cuhk.edu.hk/eLearning/download/E-AssessmentOverview-Talk-2020Nov.pdf) (https://www.cuhk.edu.hk/eLearning/download/E-AssessmentOverview-Talk-2020Nov.pdf)
  - Digital Assessment Tools (https://www.cuhk.edu.hk/eLearning/download/DigitalAssessmentTools-Talk-2020Nov.pdf)

The common technologies

Platform/Tool	Release the question paper to students	Collect answer scripts from students	Invigilation (if applicable) - Live	Invigilation (if applicable) - Recorded
Email	X	X		
OneDrive	X	X		
Course Website	X	X		
Blackboard - File/Content Item	X			
Blackboard - Assignment	X	X		
Whatsapp	X	X		
WeChat	X	X		
ZOOM - Share	X			
ZOOM - Chat - Message	X			
ZOOM - Chat - File	X	X		
KEEP	X	X		
Panopto	X	X		
Piazza	X	X	X	
uReply	X	X		
Wenjuanxing		X		
VeriGuide (VG) & VeriGuide Express		X		
Blackboard Test	X	X		
ZOOM - Participant Video (in a group meeting hosted by the invigilator)			X	X
ZOOM - Host Video (in a private meeting hosted by the student)			X	X
Respondus Lockdown Browser				X
MS Teams - Meet Now	X	X	X	X
MS Teams - Scheduled Meeting	X	X	X	X
MS Teams - Team Site	X	X	X	X

Technologies for <mark>Releasing question paper to students</mark>

- Consider the use of multiple technologies and inform students in advance the alternative technology to get the question paper to help ease the anxiety of the students

- Set up a "dummy" question paper using the selected technologies and ask students to try and confirm they can get the question paper

Additional reminder for specific tools
- ***Blackboard Test***
  - *Avoid "force completion* (https://help.blackboard.com/Learn/Instructor/Original/Tests_Pools_Surveys/Test_and_Survey_Options#force-completion-timer-and-password_OTP-2)*", avoid "prohibit backtracking", and display questions using "one-question-at-a-time presentation* (https://help.blackboard.com/Learn/Instructor/Original/Tests_Pools_Surveys/Test_and_Survey_Options#test-or-survey-presentation_OTP-9)*" (Best practices* (https://help.edtech.cuhk.edu.hk/docs/blackboard-online-test-best-practices-for-teachers-and-supporting-staff)*)*
- ***Respondus Lockdown Browser***
  - *In addition to the teacher* (https://www.cuhk.edu.hk/eLearning/c_systems/Respondus/lockdown-teacher.html) *and student* (https://www.cuhk.edu.hk/eLearning/c_systems/Respondus/lockdown-student.html) *info pages, the troubleshooting guide* (https://www.cuhk.edu.hk/eLearning/c_systems/Respondus/RespondusLDB-MED-TroubleshootingGuide.pdf) *kindly shared by the Faculty of Medicine is highly suggested for students having difficulties with Respondus Lockdown Browser.*

Technologies for Collecting answer scripts from students

- Consider the use of multiple technologies and inform students in advance the alternative technology to submit the answer scripts to help ease the anxiety of the students
- Set up a "dummy" submission dropbox using the selected technologies and ask students to try and confirm they can submit a dummy answer scripts
- Inform the support team of the chosen technologies if the class is big (>300), the exam is tightly scheduled (should avoid and consider the staggered model), and the submission file size is big (e.g. video submissions to Panopto).

Additional reminder for specific tools:
- ***Blackboard****: Ask students to use a **computer** and **reliable internet**. Uses of Blackboard App and mobile web browsers on mobile devices (such as iPhone / iPad) are common causes of failures and must be avoided*
- ***VeriGuide****: Ask students to read the VeriGuide Express info page* (https://veriguide1.cse.cuhk.edu.hk/portal/plagiarism_detection/about_vg_express/index.html) *and get ready to use https://express.veriguide.org/cuhk/login to upload their files when needed*
- ***Panopto Video Assignment Submission****: Time is needed for video processing. If the queue is long, the uploaded video may only be viewable the next day. Contact the support team to review if the Pilot Panopto (Cloud) system* (https://cuhk.ap.panopto.com/) *should be used*
- ***OneDrive*** *(demo video* (https://www.cuhk.edu.hk/eLearning/c_systems/panopto/Demo-OneDriveShare-AnyoneWithTheLink.mp4)*): Teacher(s) may ask the students to name the file with student id, skip the password and email the share link to the teacher(s) for the submission.*

Technologies for Invigilation

- Balance security and convenience to ensure a safe environment for the exam
- Accommodate students with special needs (need more time, need to use screen reader, need to use special VPN service to access non-China hosted technologies, unstable internet, unstable power supply, insufficient storage for local recording, privacy concerns over the use of mic/camera in the home environment, etc.)
- Set up "dummy/practice" sessions using the selected technologies and ask the student to try and confirm they can manage and fulfill the requirements
- Inform students in advance and ask students to try also the alternative technology to help ease the anxiety of the students (e.g. using the trial exam set up for self practices set up by ITSC

(https://www.cuhk.edu.hk/eLearning/c_systems/blackboard/Blackboard-OnlineCourse-CU-ITSC-EXAM-TRIAL.pdf)).

- Pay attention to the number of participants one invigilator can manage under the gallery view of participants of different technologies.
- Pay attention to security options of different technologies to prevent unauthorized access(e.g. ZOOM: waiting room; MS Teams: lobby)

Additional reminder for specific tools:

- *OneDrive (demo video (https://www.cuhk.edu.hk/eLearning/c_systems/panopto/Demo-OneDriveShare-AnyoneWithTheLink.mp4)):*
  - *If live recording using ZOOM / MS Teams is not feasible for a candidate, the teacher may consider asking the student to do a local recording of him/her doing the exam, and then use OneDrive to submit the local recording to the teacher.*
  - *The teacher may ask the student to name the file with student id, set the password and email the share link to the teacher for the recording.*
- *ZOOM:*
  - *Add "EXAM", "cusis_classcode" and "purpose: remote_invigilation" when scheduling ZOOM meeting for exams with self-arranged invigilation (Details (https://help.edtech.cuhk.edu.hk/docs/add-exam-cusis-classcode-purpose-remote-invigilation-when-scheduling-zoom-meeting-for-exams-with-self-arranged-invigilation)).*
  - *Currently ZOOM only allows a host to host up to 2 meetings at the same time. For more information: Can I Host Concurrent Meetings? (https://support.zoom.us/hc/en-us/articles/206122046-Can-I-Host-Concurrent-Meetings-) If you need to have several ZOOM meetings running at the same period of time for invigilation purposes, consider asking the TAs / programme support staff, or applying for extra accounts, for scheduling and hosting the meetings to avoid any conflicts.*
  - *In addition to getting familiarized with the waiting room feature, be reminded to deploy TAs to check students in the waiting room.*
  - *If your class do not involve students with limited internet access (e.g. ML China) and students are familiar with the login steps (http://www.cuhk.edu.hk/eLearning/c_systems/zoom/ZOOM-JoinMeeting-CUHK-SSO.pdf), please consider turning on "Allow only authenticated users to join (domain: *.cuhk.edu.hk) (https://www.cuhk.edu.hk/eLearning/c_systems/zoom/Zoom-Feature-AuthenticatedUserOnlyCUHK.pdf)" for better protection and getting the meeting report (after the meeting) for attendance taking.*
- *MS Teams (https://www.itsc.cuhk.edu.hk/all-it/email-messaging-and-collaboration/microsoft-teams/):*
  - *MS Teams > "Meet now" feature is available for all staff and students. In case ZOOM is not available, an urgent meeting can be set up according to this demo (https://www.cuhk.edu.hk/eLearning/c_systems/MSTeams/MSTeam-MeetNow.mp4) and sharing the meeting link with the students.*