Academic integrity and misconduct in digital delivery of assessment (10 March 2021)

This paper is intended to support delivery of 2020-21 assessments, where methods have been shifted away from in-person exams. It reviews potential risks of academic misconduct, taking account of good practice guidance developed by the Quality Assurance Agency for Higher Education (QAA):

- Navigating assessment in a digital environment, Jan 2021[1]
- Assessing with integrity in digital delivery, Sept 2020 (COVID-19 support resources)[2]
- Contracting to Cheat: How to address contract cheating, the use of third-party services and essay mills, 2nd Ed. June 2020[3].

Significant efforts have been made to ensure that assessments conducted during the pandemic are robust and fair, and the University is confident in the integrity of its assessments. However, in preparation for the main examination period and in reflecting on potential longer-term diversification of assessment practices, Faculties and Departments are encouraged to consider the points below.

In this document, the terms "academic integrity" and "academic misconduct" are used as follows:

- **academic integrity**: the "principles, values, conduct, measures and systems relating to fairness and honesty within teaching, learning and assessment"[4]; this may refer to both the integrity of students in understanding and valuing the importance of scholarly conduct as well as to the integrity of the assessment itself (in its design and implementation).
- **academic misconduct**: gaining, or attempting to gain (or helping others to do so), an unfair academic advantage in assessment, or any activity likely to undermine the integrity essential to scholarship and research[5].

Are there more risks of academic misconduct in digital delivery?

Academic misconduct is a risk in any form of assessment, even with in-person invigilated examinations. The risk for particular forms of assessment may increase in using digital methods, but these may be mitigated to a greater or lesser degree. Assessments in online or digital format are not unilaterally less robust than in-person examinations and can be equally effective.

Students are less likely to engage in misconduct where academic integrity is embedded and valued. While we believe this is largely the case at Cambridge, the disruptions, stressors, and "remoteness" of the past year may contribute to students feeling unseen and unknown, and potentially therefore more likely to find shortcuts through academic misconduct more tempting.

Foregrounding the value of academic integrity does not mean more stringent rules or warnings about academic misconduct. It means making sure students understand the value of ethical research and writing practices, how their actions contribute to the value of their discipline and the University.

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[1] https://www.qaa.ac.uk/news-events/news/qaa-launches-new-quality-compass-series
[2] https://www.qaa.ac.uk/docs/qaa/guidance/assessing-with-integrity-in-digital-delivery.pdf
[3] https://www.qaa.ac.uk/docs/qaa/guidance/contracting-to-cheat-in-higher-education-2nd-edition.pdf?sfvrsn=6197cf81_24
[4] Assessing with integrity in digital delivery, https://www.qaa.ac.uk/docs/qaa/guidance/assessing-with-integrity-in-digital-delivery.pdf
[5] Regulation 4(h) of the University Rules of Behaviour, *Statutes and Ordinances* 2020, p.190

General points

Clearly outlining expectations

Communication with students is key; Faculties and Departments should clearly outline what is, and is not, permitted in any assessment as well as what is normally expected. Most courses offer guidance on expected standards of citation in coursework and examinations. **If you have shifted your assessment practices in 2020-21 in response to the pandemic, we expect this information to be reviewed and reissued as necessary.** The quality and presentation of work produced by students in a 24-hour exam window for instance, will likely qualitatively differ from that produced in a three-hour exam. This should explicitly draw attention to any changes from "normal" exam practice in the course.

The following points may aid reflection:

- Do you expect students to provide full, partial, or no citations in online exams, whether timed or open book?
- Do you need to adjust your marking or classing criteria to account different qualitative descriptions of expected work?
- Have you provided clear expectations regarding the length of time to spend on open book exams? This should normally be the same amount of time as under usual conditions.
- Is anything qualitatively different about your revised examination process, compared to what students normally expect?
- How you have you communicated your methods of ensuring integrity, or combatting misconduct, to students? Have they expressed confidence in these methods?

In addition to reviewing documentation as above, you should ensure students are clearly signposted to your policies/requirements for assessment, and sources of support, including the marking criteria to be used.

Turnitin

In many cases, the use of text-matching software such as Turnitin may assist in the detection of plagiarism, one of the more common forms of academic misconduct. Information on the use of Turnitin and obtaining an account is available on the University's Plagiarism and Academic Misconduct website. **Courses should note that it may take several days to activate an account and that reports require detailed interpretation, so advance planning is required before Turnitin can be used.**

The University will not be utilising Turnitin as standard for online examinations, although it may be used for post-submission checks by departments. This is because, as a third-party service, the University cannot guarantee availability of the service during the examination period; high volume through Turnitin during the exam period risks availability issues and could prevent students from submitting answers within the specified time frame. Exam scripts may be downloaded in bulk from Moodle and uploaded in bulk to Turnitin for checks. **As above, this requires advance planning**; see the support page in the Moodle Remote Assessment Hub for further details.

Please note that Turnitin does not recognise handwriting and is therefore not suitable for checking digitally-scanned handwritten exam scripts. Handwritten scripts may be transcribed in order to enable Turnitin checking, but the original script must be used for marking purposes. Where scripts are transcribed only for the purposes of Turnitin, this cannot be done under the process for transcription of illegible scripts and should be managed by the department directly.

What are the risks?

Below are some common risks in different forms of assessment, along with information on methods of detection and potential mitigation. This list is intended to be illustrative and not exhaustive; if you have any queries or wish to discuss your mitigation in more depth, please contact your Education Quality and Policy Liaison Officer.

ASSESSMENT	POTENTIAL RISKS
Online timed exams	• Impersonation/Authenticating student identity • Collusion, either on- or offline • Plagiarism from online or other sources • Inappropriate citations
Online open-book (not timed) exams	• Impersonation/Authenticating student identity • Collusion, either on or offline • Plagiarism from online or other sources • Students may exceed the expected effort • Inappropriate citations • Contract cheating
Coursework	• Collusion • Inappropriate citations • Plagiarism • Contract cheating
Exams with online proctoring or remote invigilation	• Impersonation/Authenticating student identity • Using a virtual machine, screen mirroring, or other interception method, to block invigilation software • 'Unseen' collusion within the room • Loading desktop backgrounds or other static media with exam content or crib notes • Plagiarism from online or other sources (depending on software used)
Automated assessments (e.g., Multiple Choice Questions assessed via automatic rubrics)	• Collusion, either on or offline • Using internet searches (depending on software used for presentation of the MCQ) • Can obscure student attainment of learning outcomes, through ability to guess

Impersonation, Authenticating student identity and Contract cheating

All online exams managed centrally by the Exams Office will make use of Moodle authentication and enrolment to ensure that papers are only presented to, and submitted by, students registered for the exam. There is potential for students to provide someone else with their Raven login and Blind Grade Number, asking them to sit/submit the assessment on their behalf. Proctored online exams will have a manual ID check at the start of the exam, in addition to the authentication methods above.

With both coursework and online exam submission, students may contract someone to write the work which they then submit, known as contract cheating regardless of whether payment has been exchanged. Customised or bespoke essay-writing services are available and students may be approached through well-designed ads in social media or other methods. Contract cheating of this sort is particularly difficult to detect without in-depth knowledge of the student, which may not be possible with examinations taken anonymously. Potential methods of detection include:

- file metadata may present information on the author of the document, or time of editing/creation
- linguistic or other discrepancies (inconsistent phrasing, change of tense or tone) within the document may point to multiple creators, as may use of spellings or phrases not common in the UK
- the use of vivas to probe student knowledge and competency; while it is not always practical to viva every student, vivas may be implemented to assess or investigate concerns, or as random sampling
- where work is not submitted anonymously, knowledge of the student and their ability or previous work can be a flag to discrepant performance
- where work is submitted anonymously, discrepant performance may become apparent in the final stages of classing. Exam Boards should note that investigative meetings may be called at any point of the assessment process, although when it affects classing the Office for Student Conduct, Complaints and Appeals should be consulted; for more information see the University's Staff guidance document for Academic Misconduct, step 4.c.i
- for coursework particularly, searching the internet for the essay title that has been set may reveal offers or requests for contract work
- also more relevant to coursework than exams, a lack of focus on the topic or failure to address common themes covered in lectures and other teaching may indicate contracted work

There are products on the market which aim to provide comparative analysis of linguistic and metadata information to combat contract cheating. At this time, the University does not subscribe to or support such products, and does not have provision for their use.

Contract cheating is most effectively mitigated through clear assessment design. In particular, the development of "authentic assessment"[6], demonstrably linked to the learning outcomes of the course, can be a significant factor in reducing impersonation or contract cheating. This stems from a number of factors, including:

- Greater student investment in the learning experience, as it is more relevant to real-world situations they face in employment
- Underscoring the value of the assessment to the learning outcomes or competencies of the course
- The more authentically-linked to a course the assessment is, the more difficult it is to replicate through contract cheating; however, bespoke contracted assessments are readily available, and while they are more expensive than generic work, the price is not a significant barrier

Mixed methods of summative assessment, or continuous summative assessment throughout the year as opposed to end-of-year assessments only, can also support mitigation of contract cheating.

Collusion

Collaborative work may not always be restricted or discouraged, as peer-to-peer interaction can be educationally valuable. The appropriateness of collaborative activity will vary depending on the type of

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[6]https://ctl.wiley.com/authentic-assessment-in-the-online-classroom/

work required. However, there can often be a fine line between appropriate collaboration and unauthorised collusion.

It is often unreasonable to presume that students will not discuss coursework with one another. Proofreading or other review for feedback is also common and can reassure students that they are on the right track. Courses should therefore provide very clear guidance on what is appropriate collaborative activity and what is not. The University has issued guidance on the role of proofreaders.

Some courses choose to mitigate risk of collusion in online exams through time limits. The use of Turnitin or other text-matching software may reveal similarities between submitted work which prompt further investigation. Examiners may also highlight similarities as part of the marking process. Faculties and departments should review the Staff Guidance document for Academic Misconduct for appropriate actions in response.

Longer-term, assessment design can support appropriate collaboration and discourage collusion. Group tasks can be linked with pre- and post-groupwork assessments which provide a summative individual mark.

Plagiarism and Inappropriate citations

Learning to appropriately use and cite others' work accurately is a key skill any scholar should learn. As noted above, expectations for citation in examinations should be provided to students, accounting for the mode of the exam. Markers should be made aware of the guidance and what to expect, so that discrepancies can be highlighted during the marking process. Students should also be made aware of the expectations around self-plagiarism, where students use their own previously-submitted work. This may be permitted in some circumstances, and both students and supervisors should be aware of whether it is restricted and citation expectations.

The use of Turnitin or other text-matching software may reveal similarities between submitted work which prompt further investigation or academic adjustment. Examiners may also highlight similarities as part of the marking process. If Turnitin cannot be used, even a simple Google search for key phrases or passages may be able to identify areas of concern which require further investigation. Faculties and departments should review the Staff Guidance document for Academic Misconduct for appropriate actions in response.

Assessment design can also impact on students' ability to copy/paste material in online exams. Utilising assessment which requires application of knowledge or critical analysis, case- or problem-based assessment, and multi-stage assessment (for example, a literature review which is then redeveloped into a report or a blog) can all reduce academic misconduct. Students can also be encouraged to "own" their answers more directly; instructing students to write in the first person rather than the third can encourage them to develop their own ideas rather than recalling facts/claims which could be plagiarised, either deliberately or inadvertently.