

GUIDE TO DESIGNING NON- INVIGILATED (OPEN BOOK) ONLINE EXAMS WITH ACADEMIC INTEGRITY



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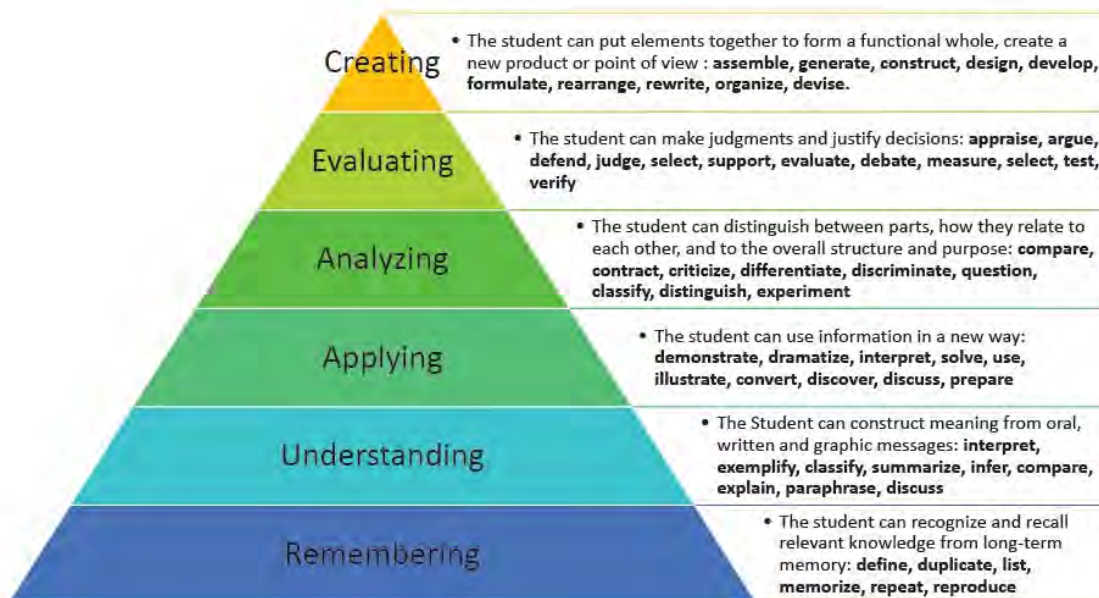
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Self-Assessment: Exam Academic Integrity Checklist

1. Find a copy of your last exam paper (or use the one you're drafting now).
2. Look at the first three questions.
3. One by one, enter the questions into Google search.
4. Time how quickly the results appear for each question search.
5. If the search returns a direct answer match, the question has no academic integrity (so not suitable for an open book exam).
6. If there is no direct answer match, but still enough information to create an answer match, the question has no academic integrity (so not suitable for an open book exam).
7. Continue Googling the rest of your questions to check 'return' on answers.
8. Determine which question 'types' maintain academic integrity (and thus CAN be used in an exam).

Based on your self-assessment, you will now have determined which answers are 'Googleable' and which ones aren't. In predicting your results, it is likely that the more 'Googleable' questions are aligned with the lower levels of Bloom's Taxonomy (*remembering, understanding*), while the 'unGoogleable' answers reflect questions aligned with the higher levels of Bloom's Taxonomy (*applying, analysing, evaluating, creating*). To achieve [academic integrity](#) in non-invigilated open book exams, ensure questions are at these higher levels.

Bloom's Taxonomy



Can there be Academic Integrity in an Open Book Exam

No exam is 100% cheat-proof (even the invigilated ones). However, you can adopt strategies to create questions/tasks where answers cannot be easily Googled or outsourced to a 'ghost writer' (contract cheating). You can also 'design out' opportunities for students to plagiarise and collude. If you know and plan for 'what can go wrong', you can plan an exam with academic integrity.

Strategy 1: Using Bloom's Taxonomy to Create Exam Questions

Given that we use Bloom's Taxonomy (or similar) to create course learning objectives, we can also use Bloom to guide the creation of exam questions. In an invigilated exam setting, you could include lower order cognitive questions that test the *remembering* and *understanding* of key course concepts. **In a non-invigilated open book exam, you cannot.** The benefit of this is that students cannot 'succeed' by cramming the night before or rote learning (*surface learning*); instead, they will need to demonstrate their understanding of course materials on a much deeper level (*deep learning*). **For example**, instead of asking questions that require students to recall facts or explain main ideas ("What is ...?", "State ...", "When did ...", "Identify ..." "List ..." "Explain ..." "Describe ..."), **shift the emphasis to:**

LEVEL	EXPECTATION	EXAMPLES
Applying	Solve problems by applying knowledge/techniques/rules in new ways or to new situations	<ul style="list-style-type: none"> ➤ Analyse a given scenario/situation, identify assumptions and principles of the argument ➤ How would you solve using ... (eg, 'x' theory) ➤ How would you organise ... to demonstrate ... ➤ How else could you plan ... in relation to ... ➤ In light of the facts, what elements would you change in order to ... ➤ In an interview with, what questions would you ask in order to ➤ With reference to ... (eg, graph), create scenarios that would ... (eg, change shape of graph/produce x results) ➤ If you ... (eg, did/changed this), what would happen to ...
Analysing	Examine information; break down information; find motives/causes; make inferences; find evidence to support findings	<ul style="list-style-type: none"> ➤ In relation to ..., what conclusions can you draw about ... ➤ In distinguishing between ... and, what assumptions can be made in relation to ... ➤ When considering ..., what motive would there be to ➤ Using your own ideas and opinions, justify how ➤ Analyse and interpret ..., draw your own conclusions and then compare these with ... ➤ Compare and contrast two ideas or concepts (eg, something unusual/unique) in order to ...
Evaluating	Present and defend opinions; make judgements; validate ideas; critique work using provided criteria	<ul style="list-style-type: none"> ➤ In relation to, how would you prioritise ... ➤ Assess the value of ... with regard to ... ➤ What recommendations would you make about ... ➤ What evidence would you cite to defend the actions of ... ➤ Based on what you know, do you agree with the ... (eg, outcomes, actions, choices made), and justify your stance ➤ With reference to ..., design an experiment to ... ➤ Create a ... (eg, summary, model) to demonstrate how ... (eg, concepts, data, multiple 'voices') are related
Creating	Compile information in a different way; combine elements in a new way to (eg) propose alternative solutions	<ul style="list-style-type: none"> ➤ How would you design ... in order to ... ➤ Suppose you could, how would this ... ➤ Predict the outcome of ... by ... ➤ Construct a model that would ... ➤ Propose an original way to ... ➤ Propose an alternative ... so that ... ➤ How would you modify ... to ... ➤ Formulate a theory to ... ➤ Propose changes to solve ... ➤ Provide an assessment of ... in relation to ... criteria

Strategy 2: Using stimulus materials to create ‘unGoogleable’ exam questions

Building on higher levels of Bloom, you can use stimulus materials to design questions/tasks that limit the opportunity for students to cheat, collude, plagiarise or easily Google answers. When choosing stimulus materials for assessment tasks, you’re only limited by your teaching imagination. In a **non-invigilated online assessment environment**, you can use a wide pool of stimulus materials, including text, photographs, graphs, diagrams, cartoons, quotes, newspaper headlines, manual extracts, advertisements, executive summary, video or audio clip (provided you can rely on the technology working), budgets, menus, company reports, statements, scripts, plans, programs ... really, anything that’s of relevance to your context.

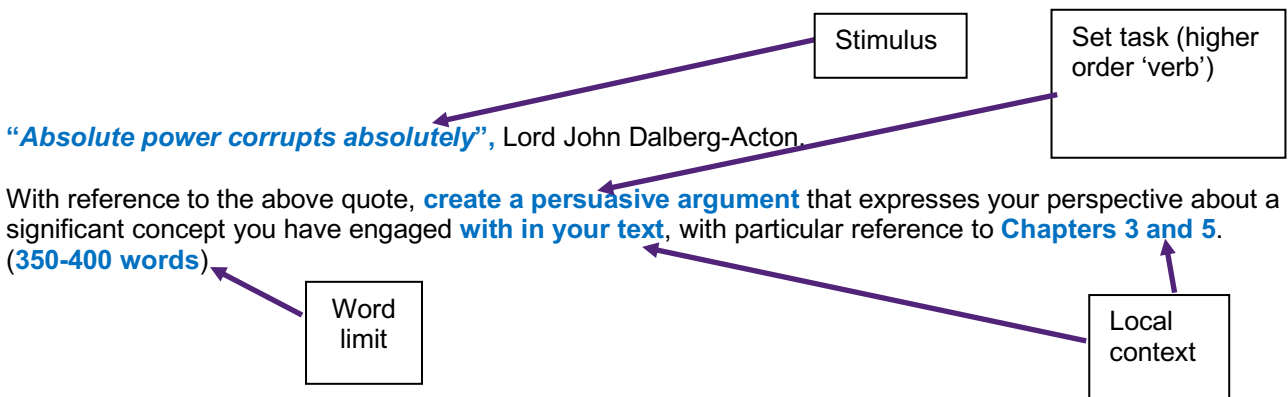
The following examples provide ideas for ‘refreshing’ past exam questions as well as creating new ones.

SUGGESTION: ‘REFRESH’ APPROACH

With this approach, you could:

- Take an existing exam question (or something from your course materials), and add a **new ‘condition’ or circumstance** (via the stimulus introduced).
- Narrow the scope by keeping it **local/contextual/case specific** (thus making it difficult for students to ‘Google’ the answer).
- Invite students to provide their own perspective or opinion (allowing you to make a judgement on depth of understanding in relation to the relevant course learning objective).

FOR EXAMPLE:



ANOTHER EXAMPLE:

Review the following information related to [eg, course concept/context/topic]:

[Add appropriate stimulus material, eg, data, graph, table]

With reference to the **article by Johanssen (2018)**, (see Week 6 course materials), you are required to analyse and evaluate the usefulness of the data provided (above). In doing so, your draft is to include:

- i. a **½ page of key (bulleted) points** you will **present** at the next [eg, management] meeting;
- ii. one paragraph that also reflects **your own personal opinion** about the relevance of the article in relation to the data presented (**100-150 words**).

See Appendix 1 for another ‘refresh’ example

SUGGESTION: REAL-LIFE APPROACH

With this approach, you could:

- Create a meaningful scenario (eg, local or national organisation, with some background context).
- Create a 'role' for your student within that scenario (eg, Marketing Manager, Team Leader, Consultant, Union Representative, etc).
- Outline the task, making reference to the stimulus materials students must use in order to complete the task (eg, short report, PP slides, draft article, debate speech, etc).

EXAMPLE:

During the semester, we undertook a social experiment, where you were required to 'log' and reflect on your use of social media (eg, Facebook, LinkedIn, Twitter and Instagram). With the results of your social experiment in mind, along with the course concepts we've engaged with this semester, review the following information presented at a recent team workshop on social media by Jay Aretha, Director of Giant Hearts, a small, not-for-profit organisation (where you work part time):



“Negative social media content can destroy trust in your brand in a matter of minutes.”

“Planning is crucial.”

“Sometimes it’s better to do nothing to avoid creating a crisis for no reason.”

How social media could ruin your business:
<https://www.bbc.com/news/business-48871456>

“It’s good to hear that most of you are using social media. I want us to jump on board the social media wagon – we need a presence ‘out there’. However, being a not-for-profit organisation, we don’t have a big budget for this. What do you suggest we do?” Jay Aretha, Director, Giant Hearts

It’s obvious that the Director does not have a solid understanding of the use of social media in business. However, you do. As such, Jay has asked you to **prepare a brief** for the Giant Hearts team titled, *“Social Media is not as easy as it looks ... but it can work!”*

In your brief, **address all the pieces of information presented by the Director** (ie, the cartoon, quotes, own comment). Where applicable, **bring in your own reflections/learnings** from your social media experiment plus **relevant course materials** (in particular, materials covered in Weeks 7 & 8). **(350-400 words)**

SUGGESTION: OPINION PIECE

With this approach, you could:

- Provide a range of stimuli (eg, two photographs or graphs or two sets of comments relating to a case)
- Ask students to rely on their overall impression of the stimuli to complete the task (ie, their thoughts/opinions about, eg, which image or statement is more reflective/indicative of a particular concept)

OR

- Ask students to make an analytical evaluation/assessment of the stimuli to complete the task (ie, students must draw on relevant theory/academic sources to inform what they write in response to the stimulus/task set)

FOR EXAMPLE:

This semester, we have studied a number of key concepts linked to sustainability, some of which are highlighted in the following images:



Drawing on your learnings, write an opinion piece for the UQ magazine, *Sustainability*, commenting on how these images inform your perspective about tourism as a business. Anchor your opinion piece with a suitable heading for your article (top) and ‘call to action’ (last paragraph). **(300 words)**

Tips for Using Stimulus Materials in Exam Questions

The key to using stimulus materials in exam questions is to choose ‘for purpose’, organise cohesively and present materials in an engaging way, as highlighted in the following checklist:

CHOICE OF CONTENT	ORGANISATION OF CONTENT	GRAPHIC DESIGN
<input checked="" type="checkbox"/> Appropriate to LOs linked to the assessment task	<input checked="" type="checkbox"/> Inviting	<input checked="" type="checkbox"/> Clear starting point
<input checked="" type="checkbox"/> Authentic/meaningful	<input checked="" type="checkbox"/> Clear and unambiguous	<input checked="" type="checkbox"/> Clear navigation pathway
<input checked="" type="checkbox"/> Interesting/engaging	<input checked="" type="checkbox"/> Well structured	<input checked="" type="checkbox"/> Sufficient white space
<input checked="" type="checkbox"/> Current	<input checked="" type="checkbox"/> Well labelled	<input checked="" type="checkbox"/> Graphics match the theme
<input checked="" type="checkbox"/> Accurate/factually correct	<input checked="" type="checkbox"/> Signalled connections between materials	<input checked="" type="checkbox"/> Appropriate fonts/sizes
<input checked="" type="checkbox"/> Appropriate to demographic	<input checked="" type="checkbox"/> Appropriate length	<input checked="" type="checkbox"/> Labels enhance readability
<input checked="" type="checkbox"/> Sensitive to social diversity	<input checked="" type="checkbox"/> Easily ‘digestible’ in time	<input checked="" type="checkbox"/> Appropriate level of detail
<input checked="" type="checkbox"/> Free of offensive stereotypes	<input checked="" type="checkbox"/> Available	

In Summary

To create exam questions with academic integrity, suitable for all exam conditions including the online, non-invigilated open book exam environment:

1. Choose a theme/context for your question/s (adds authenticity, real life element).
2. Select preferred approach(es) for creating unGoogleable questions (see suggestions above).
3. Revisit course learning objectives: as a single assessment instrument, the exam must afford students the opportunity to demonstrate that they can meet the LOs aligned with this task.
4. Write questions that require students to demonstrate a more creative use and application of knowledge and understanding (see Bloom plus [glossary of cognitive verbs](#)).
5. On the exam cover sheet (and in your BB announcements), remind students about their ‘academic integrity’ responsibility, ie, they must acknowledge and agree to the UQ Student Pledge.
6. In the exam instructions, remind students of the ‘standard’ of response you expect, also linked to academic integrity, ie, basic recall and regurgitation (surface learning), Googling answers and/or cutting and pasting from websites will not earn marks. The nature of the questions expects students to apply their learning by demonstrating what they can do with what they know (deeper learning).
7. In preparing students, stress that memorisation/rote learning is of NO use in this exam. If not used to sitting this type of exam, students will need your help in understanding ‘shift’ in expectations (eg, practice questions).

Final Tips

- Where core course concepts ‘align’, consider combining into one question (rather than several smaller ones).
- Once you have drafted the exam, leave it for 24 hours, then ‘sit the test’ under exam conditions. You will be able to produce a model answer (marking guide), make adjustments to question ‘sense/readability’, and check timing.
- As an example of timing, you should be able to complete a 120-minute exam in 70-80 minutes. If you need close to 120 minutes, your students will NOT finish the exam in time.
- [Quality assessment](#) is characterised by validity, accessibility and reliability. Therefore, ask a colleague to complete the exam and provide feedback. This QA exercise will also inform your future moderation activities.

Appendix 1: Modifying MCQ Examinations to suit an “online” format – Law example

Four “Googleable” Legal Questions (1 mark each)

Question 1

Anna wishes to sue a Queensland establishment for the sum of \$148,500. In which Court would Anna bring her claim?

- a.) The District Court of Queensland;
- b.) The Federal Court of Australia;
- c.) The High Court;
- d.) **The Queensland Magistrate’s Court.**

Question 2

If Anna takes an Original Jurisdiction matter to Court and loses her case, in which Court is Anna likely to lodge and Appeal?

- a.) The Queensland Magistrate’s Court (Appellate Jurisdiction);
- b.) The High Court of Australia;
- c.) **The District Court of Queensland (Appellate Jurisdiction);**
- d.) The Full Court of the Federal Court.

Question 3

Which type of Alternative Dispute Resolution (ADR) most closely resembles a Courtroom and involves an independent person listening to both sides of an argument and providing the parties with a decision?

- a.) Conciliation;
- b.) Mediation;
- c.) **Arbitration;**
- d.) Gratification.

Question 4

Which one of the following best describes the relationship between criminal and civil law?

- a.) **In civil law, the dispute is between two or more individuals and in criminal law the dispute is between the State and an individual.**
- b.) In a criminal law case, the Crown must prove the case on the balance of probabilities. In a civil law case, the Plaintiff must prove the case beyond reasonable doubt.
- c.) All countries have criminal laws. However, civil law is the law imposed only in civil law countries.
- d.) An individual can bring civil and criminal claims against another individual at the same time.

In a closed-book, invigilated (F2F) exam, these questions pose little opportunity for student plagiarism or collusion due to the nature of the examination setting. These types of questions, usually included in Mid Semester examinations, aim to test basic student understanding of Course content, without assessing students’ ability to analyse a legal problem and provide a solution to that problem. Essentially, the questions require little advanced thinking for students to ascertain the correct answers.

Whilst suited to a closed-book format, the answers to these questions are easily searched online (“Googleable”) and therefore **not suitable** for non-invigilated, open book, online examinations. The challenge, then, is to create a law exam that can be held in this type of environment. One solution is to combine all the principles assessed in the previous four multiple choice questions into one short answer question. In doing so, you can mask the “basic” ideas behind a multitude of facts, with students examined on their ability to critically analyse and evaluate those facts in order to find the answer.

The example of the new question (and answer), based upon the previous four multiple choice questions, can be seen below.

Advanced “Problem Style” Legal Question (5 marks)

Question

Anna is shopping in the Queen Street Mall in Brisbane when she slips over a banana that was thrown on the floor by another customer. The cleaner employed by the Queen Street Mall, who had consumed too much alcohol an hour before work, failed to pick up the banana.

As a result of the fall, Anna suffers a broken hip and broken leg, and wants to sue the mall for \$148,500 in damages. Anna goes to Court and is unhappy with the initial decision and wants to appeal that decision.

You are required to:

- Discuss which Court Anna's matter was originally heard in, and which Court(s) Anna can appeal to and why.
- In the event that Court proceedings did not occur in the first place, discuss two alternative ways to resolve the dispute and their benefits as compared to litigation.
- Finally, address whether Anna's matter involves civil or criminal law, and why.

Advanced “Problem Style” Legal Answer

Model Answer

Anna's matter would initially be heard in the Magistrates Court in Queensland due to the matter being under \$150,000 (**1 mark**). The Appeal could either be heard in the District Court (Appellate jurisdiction) or Full Court of the Supreme Court (**1 mark**).

Some ADR mechanisms include negotiation or mediation with the Queen Street Mall, in a settlement or alternatively arranging for an Arbitrator to settle the dispute on binding terms. ADR mechanisms would benefit Anna as they tend to be cheaper and more time efficient than litigation (**2 marks**).

Anna's matter involves civil law (negligence), as it deals with the private rights of individuals/corporations, as opposed to the rights between the State and a person (**1 mark**).

Acknowledgement: *Sincere thanks to Timothy Thomas (Law) for creating and sharing this example.*

Some Light Reading

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