

Substantiating contract cheating: A guide for investigators

Key principles

1. Educate: Ensure all staff, particularly markers and unit/course coordinators, are aware of the signals that can indicate contract cheating and, thus may be a cause for suspicion (see following pages)
2. Investigate: One or two signals do not provide enough evidence to substantiate cheating, but can provide cause for further investigation.
3. Use policy: Refer suspected cases of contract cheating to an appropriate investigator and decision-maker, as per your institution's relevant policies.
4. Not 'proof', but 'balance of probability': Investigate suspected breaches as a lay proceeding, using the standard from civil law, where the 'balance of probability' is the relevant test to which allegations must be subjected. The balance of probability is based on 'clear and convincing evidence' that it is more likely than not that the allegation is true. This is less demanding than the criminal law test of 'beyond reasonable doubt'.
5. Examine: Look carefully at each aspect of the document and other relevant sources of evidence. Identify every aspect that is cause for concern.
6. Collect evidence: Accumulate a range of evidence that clearly and convincingly establishes the firm belief that the breach in question is not only probable, but highly probable. Three forms of evidence are critical:
 - a. Textual and electronic evidence from the suspected assessment
 - b. Knowledge of the student's academic and linguistic abilities
 - c. The student's previous assessment work
7. Interview: Conduct an interview with the student to ascertain his/her familiarity with the contents of the assignment and the methods used to research the assignment content (see Interview Guide).
8. Use experience: Decide how much weight to give to each piece of evidence, based on common sense, everyday experience, and experience of previous academic integrity breach cases.
9. Ensure natural justice: Allow the student to have an opportunity to explain and demonstrate, either in person (face-to-face/teleconference) or in writing, how they developed their assignment. Ensure the student is supported appropriately in this process. Record the meeting carefully for future reference.
10. Evaluate: Weigh all of the evidence to form an overall picture that provides clear and convincing evidence on the 'balance of probability' that contract cheating has or has not occurred.

Adapted from www.cheatingandassessment.edu.au/



Guide to textual and technological signals of potential contract cheating

Textual Signals	Why this may be a clue
Very low text match (0 – 5%)	Scholarly work cites sources, so it is unlikely to have a text-match of 5% or less; the work may have been manipulated to lower the similarity score to avoid checks.
High text match (>30%)	Commercial ‘bespoke’ assignments can be cut and pasted from sources, despite claims they are ‘plagiarism free’.
High text match (other student’s work)	Assignments obtained from file-sharing sites or other students are likely to be identified by text-matching software. Contract cheating sites may have sold ‘custom’ work to multiple students.
Document properties: <ul style="list-style-type: none"> • Author • Creation date • Editing time • Version number • Properties blank/wiped 	The metadata of a Word document may indicate an author name not matching the student, an odd creation date, or very short editing time. If properties are blank they may have been wiped to hide such anomalies. If the student suggests it was written on a friend’s computer, or that it is a final ‘fresh’ version, they should be able to provide drafts and other evidence. The software used to create the document may also be evident – a foreign version of ‘Word’ software for example, may be a cause for concern.
Not appropriate to discipline area	The writing and content may be at odds with language typical in the assignment/discipline, because sometimes academic cheating service writers provide assignments on multiple academic disciplines and cite irrelevant or peripherally relevant sources from any number of disciplines.
Quality different to or above expectations	A mismatch between the assignment quality (language use, content knowledge, formatting and style) and the student’s previous work (e.g. assignments, exams, online and in-class work) may indicate the work is not that of the same author.
Language use and ability	A mismatch between the language use in the assignment and the student’s language use (e.g. in class, in interpersonal interactions, online, in previous assignments, exams). In particular, high quality writing from people with low standards of spoken language is a red flag.
Unreadable language, including jargon-filled sentences and misuse of words	Online ‘article spinners’, translation and/or paraphrasing tools can automatically transform any text into ‘original’ writing that bypasses text-matching software. This writing sounds excessively verbose/complicated, makes little sense, and misuses terms and everyday words. This process may be used by students or ghost-writers to avoid text-matching detection, but does not demonstrate understanding of the original material.
References in languages that the student does not speak	It is highly unlikely that a student would try to use foreign language references that don’t match their own language/s.
Reflections are inappropriate	Reflections on classroom experience or practicums are difficult or impossible for writers who did not attend the class or work-integrated learning experience. In addition, reflection on the process of completing the assignment may be useful to assess. Because of this, reflections may be inappropriate or generic if not written by the student themselves.

Textual Signals	Why this may be a clue
Reference list, but: <ul style="list-style-type: none"> • No in-text citations • Mismatch with in-text citations • Sources inappropriate/irrelevant • Access dates for internet sources predate enrolment • References are falsified 	<p>Commercial 'bespoke' assignments may be produced quickly by (re)using old information or writing from previous jobs. This maximises profit, but leads to low quality work. Moreover, students taking a transactional approach to learning may only send minimal task information to the cheating service, overlooking important details in the assignment brief. That is why assignments that are only vaguely relevant to the topic, or using references to odd sources are classic signs of contract cheating.</p> <p>Writers may append reference lists without any in-text citations, or in-text citations may not match the reference list. Access dates for internet sources may predate the student's enrolment in the course. Some of the references may be false (non-existent) or falsified (the cited source does not contain the information claimed).</p>
Does not meet criteria/requirements: <ul style="list-style-type: none"> • Min/max required references • Required references/authors • Date range of references • Referencing style • Excludes key content; includes irrelevant content 	<p>Reference may not include theories or literature covered in the unit learning resources, textbook, or lectures that are typically cited by other students for the same assessment.</p> <p>Text-matching software may indicate all references are from the same source. Because most references are cited by others, students' references lists should match to other sources that have used the same citations; however, a 'block' match to one paper may indicate the assignment paraphrases that paper.</p>
Reference formatting bibliographic software that not known to the student.	<p>Undergraduate students, in particular, may not use referencing software such as Endnote or Mendeley, or your institution may provide access to one type of referencing software and the submission uses a different kind. If referencing software was used, check that the student is aware of it.</p>
Learning analytics - Short login times, no logins, no access to assessment resources/information except for submission	<p>If students have not accessed learning management systems, assessment information, or have only done so very briefly, they are unlikely to have been able to meet the assessment criteria and may have simply passed the assignment on to a third party.</p>
IP addresses	<p>If a student has to submit an assignment via a Learning Management System such as Blackboard and Moodle they may provide their login to an academic cheating service. This may result in logins from multiple IP addresses, including overseas addresses, and at unusual times if the academic cheating service is in a different time zone, or there may be simultaneous logins from different locations.</p>
Have they accessed library materials that they have cited?	<p>Student login records may show that the student has not accessed sources they have cited in their assessment. Students should be asked how or where they accessed the materials that they cited.</p>

Textual Signals	Why this may be a clue
Text readability statistics differences	Programs such as Microsoft Word can provide readability statistics. A student typically writes work within a certain readability range. Work written by a third party may be substantially more or less readable than the student's own work, as demonstrated in other assignments.
Conduct an internet search for the student	Students sometimes share public information that may provide clues; for example, their name may appear on academic cheating service websites as having placed orders or even providing testimonials. Their request for outsourcing may appear in places like Twitter. They may be 'tagged' in a photo at an event at the same time as their assignment was submitted.
Evidence of a template that is not from your institution – e.g. running head, extra white space, 'insert name here'	Some academic cheating service writers may use a template that includes uncommon features of student writing such as a running head, or text fields such as name or date that they, or the student, do not update. Some templates include features such as excessive spacing or blocks of 'white space', to extend the number of pages because academic cheating services are often paid by the page. Other templates may use language that is inconsistent with the institution (e.g., unit vs. module vs. subject, vs. course; semester vs. trimester vs. session).
Anything else that seems unusual or concerning?	Trust your instincts as an experienced educator. If something seems unusual or 'off', consult a trusted colleague or academic integrity decision-maker.

Adapted from www.cheatingandassessment.edu.au/

Checklist for Investigating Suspected Contract Cheating

Textual Signals	No Concern	Some Concern	High Concern
Very low text match (0 – 5%)			
High text match (>30%)			
High text match (other student's work)			
Document properties: <ul style="list-style-type: none"> • Author • Creation date • Editing time • Version number • Properties blank/wiped 			
Not appropriate to discipline area			
Quality different to or above expectations			
Language use and ability			
Unreadable language, including jargon-filled sentences and misuse of words			
Reference list, but: <ul style="list-style-type: none"> • No in-text citations • Mismatch with in-text citations • Sources inappropriate/irrelevant • Access dates for internet sources predate enrolment • References are falsified 			
Does not meet criteria/requirements: <ul style="list-style-type: none"> • Min/max required references • Required references/authors • Date range of references • Referencing style • Excludes key content; includes irrelevant content 			
References in languages that the student does not speak			
Reflections are done badly			
Technological Signals			
References formatting is done by referencing software, such as Endnote, that is not available to the student.			
Learning analytics - Short login times, no logins, no access to assessment resources/information except for submission			
IP addresses			
Have they accessed from the library the materials that they have cited?			
Text readability statistics differences			
Conduct an internet search for the student			
Evidence of a template that is not from your institution – e.g. running head, extra white space, “insert name here”			
Anything else that seems unusual or concerning?			

A brief guide to academic integrity interviews with student

This Guide is intended for investigators who conduct discussions with students about suspected academic integrity breaches in their assessments. The Guide provides an overview of: 1) the background and goals for academic integrity interviews with students; and 2) a template for conducting an academic integrity interview.

The background for conducting student interviews

For common academic integrity issues, such as poor referencing, an interview with a student may not be needed and the issue can be addressed with written or oral feedback from the marker, or via a deduction of marks. For more serious suspected breaches of academic integrity, it is helpful and appropriate for an interview to be held with the student. Following best practice academic integrity guidelines, such interviews should be conducted by trained academic integrity investigators rather than markers or academic staff. The focus of the interview and the designated interviewer may vary according to institutional policies and procedures. However, a critical principle in all cases is that the interviewer should be familiar with the assessment item in question and the areas of concern raised by the marker before conducting the interview. Importantly, an academic integrity investigation is first and foremost an opportunity to support students' learning.

The goals of an academic integrity interview

- 1. Check academic integrity understanding:** An interview helps to determine the students' understanding of academic integrity expectations. Have they completed academic integrity education? Have they been told the rules and expectations relating to particular types of assignments (or is it reasonable for them to know these rules)? Have they read the institution's academic integrity policy?
- 2. Check academic integrity skills:** Determine whether the student knows the relevant academic integrity rules and if they know how to apply them in the assignment in question. For example, does the student know how to correctly reference academic sources using the appropriate referencing system?
- 3. Educate:** The interview is an opportunity for one-on-one education of academic integrity knowledge and skills, as well as research, technical or writing skills.
- 4. Provide an opportunity for students to provide explanations:** Suspicions of academic integrity breaches are often based on initial evidence from a submitted assessment (for example, electronic text-matching, poor referencing, document properties showing another author). However, the suspected breach may stem from a lack of understanding or the 'red flags' that raised suspicion may in fact have a reasonable explanation.
- 5. Gather evidence:** Answers provided by students in an interview can provide evidence that substantiates the suspected breach and justify consequences for inappropriate conduct. Evidence may include admission of wrongdoing or inconsistencies between student's answers to questions and textual/documentary/electronic evidence.
- 6. Viva voce (oral defence):** An interview can provide an opportunity to further assess the students' understanding of the material in the written assessment. This is a particularly useful step in assessing whether the student has completed the work themselves or may have outsourced the work to a third party.
- 7. Refer to support services:** Regardless of the academic integrity investigation, meeting with a student often elicits unexpected information which should prompt referral to appropriate support services. In addition to being referred to online information and learning and teaching support services, some students may benefit from psychological counselling, financial advice, vocational guidance or academic program advice. Investigators should place students' welfare at the centre of the interview.

An investigator template for conducting a student academic integrity interview.

Unit: _____ **Teaching Period:** _____ **Assessment:** _____
Date: _____ **Time:** _____
Interviewer: _____
Student: _____ **Student Number:** _____
Others attending: _____

Issues of concern identified by the assessment marker, unit/module/course/subject coordinator, interviewers

Questions relating to the assessment writing process	Student answers
How long have you been studying your current course?	
What do you know about academic integrity?	
Have you had any specific training in academic integrity?	
Are you aware of the institution's academic integrity policies?	
How did you go about researching the assignment?	
What websites, search engines, books, and/or databases did you use to research the assignment?	
What referencing system/style did you use?	
In the referencing system you used, are there any differences in how quotes and paraphrased material should be represented?	
Did you talk to anyone else about the assignment when you were researching or writing it? If yes, who, and what did you discuss	
Did you write or prepare the assignment with anyone else's help. If yes, who, and what help did you receive?	
How did you go about writing the assignment?	
What software and computer did you use to complete the assignment?	
Did you use a reference manager or bibliographic software? If yes, which one?	
Can you tell me in your own words what the assignment was about?	
Is there anything else you would like to tell me about your circumstances during the writing of this assignment?	

Possible follow-up questions in the case of suspected contract cheating (or if applicable)

You used the term _____ in your assignment, what do you understand this term to mean?

Your assignments' references were formatted using bibliographic software (e.g., Endnote/ Mendeley). What can you tell me about how you used this program?

The document properties of your assignment indicate that the author was _____. Who is that person?

The document properties of your assignment indicate an inconsistency from what you told me earlier (e.g., different software, short editing time). Can you explain why that is?

Where did you find the references to _____ source?

_____ source is not available through our library, can you tell me where you found it?

_____ reference(s) are more related to another discipline than the focus of your assignment. Why did you cite _____?

Other _____?

Can you show me an earlier draft of your work?

Can you show me articles that you downloaded in researching this assignment?



Acknowledgements

This guide was prepared by Dr Guy Curtis, Professor Tracey Bretag, Dr Christine Slade and Dr Margot McNeill based on the work of Ann Rogerson, Felicity Prentice, the Contract Cheating and Assessment Design Project and numerous researchers on contract cheating. We would like to thank Associate Professor Phillip Dawson and Associate Professor Cath Ellis for their feedback on earlier versions of this work.