

Al Use in Assessments: Protecting the Integrity of Qualifications

Guidance for Teachers & Assessors















Executive summary

While the potential for student artificial intelligence (AI) misuse is new, most of the ways to prevent its misuse and mitigate the associated risks are not; centres will already have established measures in place to ensure that students are aware of the importance of submitting their own independent work for assessment and for identifying potential malpractice. This guidance reminds teachers and assessors of best practice in this area, applying it in the context of AI use.

The guidance emphasises the following requirements:

- As has always been the case, and in accordance with section 5.3(j) of the JCQ
 General Regulations for Approved Centres (https://www.jcq.org.uk/exams-office/general-regulations/), all work submitted for qualification assessments must be the students' own;
- Students who misuse AI such that the work they submit for assessment is not their own will have committed malpractice, in accordance with JCQ regulations, and may attract severe sanctions;
- Students and centre staff must be aware of the risks of using AI and must be clear on what constitutes malpractice;
- Students must make sure that work submitted for assessment is demonstrably their own. If any sections of their work are reproduced directly from AI generated responses, those elements must be identified by the student and they must understand that this will not allow them to demonstrate that they have independently met the marking criteria and therefore will not be rewarded (please see the *Acknowledging AI Use* section below);
- Teachers and assessors must only accept work for assessment which they consider to be the students' own (in accordance with section 5.3(j) of the JCQ General Regulations for Approved Centres); and
- Where teachers have doubts about the authenticity of student work submitted for assessment (for example, they suspect that parts of it have been generated by AI but this has not been acknowledged), they must investigate and take appropriate action.

The JCQ awarding organisations' staff, examiners and moderators have established procedures for identifying, reporting and investigating student malpractice, including the misuse of AI.

The JCQ awarding organisations are continuing to monitor developments in this area and will update this guidance when appropriate.

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The assessments this guidance applies to

Students complete the majority of their exams and a large number of other assessments under close staff supervision with limited access to authorised materials and no permitted access to the internet. The delivery of these assessments will be unaffected by developments in AI tools as students will not be able to use such tools when completing these assessments.

There are some assessments in which access to the internet is permitted in the preparatory, research or production stages. The majority of these assessments will be Non-Examined Assessments (NEAs) for General Qualifications, coursework and internal assessments. This document is primarily intended to provide guidance in relation to these assessments.

What is AI use and what are the risks of using it in assessments?

Al use refers to the use of Al tools to obtain information and content which might be used in work produced for assessments which lead towards qualifications.

While the range of AI tools, and their capabilities, is likely to expand greatly in the near future, misuse of AI tools in relation to qualification assessments at any time constitutes malpractice. Teachers and students should also be aware that AI tools are still being developed and there are often limitations to their use, such as producing inaccurate or inappropriate content.

Al chatbots are Al tools which generate text in response to user prompts and questions. Users can ask follow-up questions or ask the chatbot to revise the responses already provided. Al chatbots respond to prompts based upon patterns in the data sets (large language model) upon which they have been trained. They generate responses which are statistically likely to be relevant and appropriate. Al chatbots can complete tasks such as the following:

- Answering questions
- · Analysing, improving, and summarising text
- · Authoring essays, articles, fiction, and non-fiction
- · Writing computer code
- Translating text from one language to another
- Generating new ideas, prompts, or suggestions for a given topic or theme
- · Generating text with specific attributes, such as tone, sentiment, or formality

Al chatbots currently available include:

- ChatGPT (https://chat.openai.com)
- Jenni Al (https://jenni.ai)
- Jasper AI (https://www.jasper.ai/)
- Writesonic (https://writesonic.com/chat/)
- Bloomai (https://huggingface.co/bigscience/bloom)
- · Google Bard

There are also AI tools which can be used to generate images, such as:

- Midjourney (https://midjourney.com/showcase/top/)
- Stable Diffusion (https://stablediffusionweb.com/)
- Dalle-E 2 (OpenAI) (https://openai.com/dall-e-2/)

The use of AI chatbots may pose significant risks if used by students completing qualification assessments. As noted above, they have been developed to produce responses based upon the statistical likelihood of the language selected being an appropriate response and so the responses cannot be relied upon. AI chatbots often produce answers which may seem convincing but contain incorrect or biased information. Some AI chatbots have been identified as providing dangerous and harmful answers to questions and some can also produce fake references to books/articles by real or fake people.

What is Al misuse?

As has always been the case, and in accordance with section 5.3(j) of the JCQ General Regulations for Approved Centres (https://www.jcq.org.uk/exams-office/ general-regulations/), students must submit work for assessments which is their own. This means both ensuring that the final product is in their own words, and isn't copied or paraphrased from another source such as an Al tool, and that the content reflects their own independent work. Students are expected to demonstrate their own knowledge, skills and understanding as required for the qualification in question and set out in the qualification specification. This includes demonstrating their performance in relation to the assessment objectives for the subject relevant to the question/s or other tasks students have been set. Any use of AI which means students have not independently demonstrated their own attainment is likely to be considered malpractice. While AI may become an established tool at the workplace in the future, for the purposes of demonstrating knowledge, understanding and skills for qualifications, it's important for students' progression that they do not rely on tools such as AI. Students should develop the knowledge, skills and understanding of the subjects they are studying.

Al tools must only be used when the conditions of the assessment permit the use of the internet and where the student is able to demonstrate that the final submission is the product of their own independent work and independent thinking.

Examples of AI misuse include, but are not limited to, the following:

- Copying or paraphrasing sections of Al-generated content so that the work is no longer the student's own
- Copying or paraphrasing whole responses of Al-generated content
- Using AI to complete parts of the assessment so that the work does not reflect the student's own work, analysis, evaluation or calculations
- Failing to acknowledge use of AI tools when they have been used as a source of information
- · Incomplete or poor acknowledgement of AI tools
- Submitting work with intentionally incomplete or misleading references or bibliographies.

Al misuse constitutes malpractice as defined in the JCQ Suspected Malpractice: Policies and Procedures (https://www.jcq.org.uk/exams-office/malpractice/). The malpractice sanctions available for the offences of 'making a false declaration of authenticity' and 'plagiarism' include disqualification and debarment from taking qualifications for a number of years. Students' marks may also be affected if they have relied on Al to complete an assessment and, as noted above, the attainment that they have demonstrated in relation to the requirements of the qualification does not accurately reflect their own work.

Centre engagement with and discussion of Al

Centres will already have agreed policies and procedures relating to assessment in place to ensure the authenticity of assessments. Centres must now ensure that these can also address the risks associated with AI misuse.

Teachers, assessors and other staff must discuss the use of AI and agree their approach to managing students' use of AI in their school, college or exam centre. Centres must make students aware of the appropriate and inappropriate use of AI, the risks of using AI, and the possible consequences of using AI inappropriately in a qualification assessment. They should also make students aware of the centre's approach to plagiarism and the consequences of malpractice. Centres should consider communicating with parents to make them aware of the risks and issues and ensure they support the centre's approach.

Centres should do the following:

- a) Explain the importance of students submitting their own independent work (a result of their own efforts, independent research, etc) for assessments and stress to them and to their parents/carers the risks of malpractice;
- b) Update the centre's malpractice/plagiarism policy to acknowledge the use of AI (e.g. what it is, the risks of using it, what AI misuse is, how this will be treated as malpractice, when it may be used and how it should be acknowledged) - most simply by referencing this document;
- c) Ensure the centre's malpractice/plagiarism policy includes clear guidance on how students should reference appropriately (including websites);
- d) Ensure the centre's malpractice/plagiarism policy includes clear guidance on how students should acknowledge any use of AI to avoid misuse (see the below section on acknowledging AI use);
- e) Ensure that teachers and assessors are familiar with AI tools, their risks and AI detection tools (see the *What is AI use and what are the risks of using it in assessments?* and *What is AI misuse?* sections);
- f) Consider whether students should be required to sign a declaration that they
 have understood what AI misuse is, and that it is forbidden in the learning
 agreement that is signed at enrolment in some centres;
- g) Ensure that each student is issued with a copy of, and understands, the appropriate JCQ *Information for Candidates* (<u>www.jcq.org.uk/exams-office/information-for-candidates-documents</u>);
- h) Reinforce to students the significance of their (electronic) declaration where they confirm the work they're submitting is their own, the consequences of a false declaration, and that they have understood and followed the requirements for the subject; and
- i) Remind students that awarding organisation staff, examiners and moderators have established procedures for reporting and investigating malpractice (see the *Awarding Organisation actions* section below).

Acknowledging Al use

It remains essential that students are clear about the importance of referencing the sources they have used when producing work for an assessment, and that they know how to do this. Appropriate referencing is a means of demonstrating academic integrity and is key to maintaining the integrity of assessments. If a student uses an AI tool which provides details of the sources it has used in generating content, these sources must be verified by the student and referenced in their work in the normal way. Where an AI tool does not provide such details, students should ensure that they independently verify the AI-generated content – and then reference the sources they have used.

In addition to the above, where students use AI, they must acknowledge its use and show clearly how they have used it. This allows teachers and assessors to review how AI has been used and whether that use was appropriate in the context of the particular assessment. This is particularly important given that AI-generated content is not subject to the same academic scrutiny as other published sources.

Where AI tools have been used as a source of information, a student's acknowledgement must show the name of the AI source used and should show the date the content was generated. For example: ChatGPT 3.5 (https://openai.com/blog/chatgpt/), 25/01/2023. The student must, retain a copy of the question(s) and computer-generated content for reference and authentication purposes, in a non-editable format (such as a screenshot) and provide a brief explanation of how it has been used.

This must be submitted with the work so the teacher/assessor is able to review the work, the Al-generated content and how it has been used. Where this is not submitted, and the teacher/assessor suspects that the student has used Al tools, the teacher/assessor will need to consult the centre's malpractice policy for appropriate next steps and should take action to assure themselves that the work is the student's own. Further guidance on ways this could be done are set out in the JCQ Plagiarism in Assessments guidance document (see link below).

The JCQ guidance on referencing can be found in the following:

- Plagiarism in Assessments (https://www.jcq.org.uk/exams-office/malpractice/
 plagiarism-in-assessments---guidance-for-teachersassessors/)
- Instructions for conducting coursework (https://www.jcq.org.uk/wp-content/uploads/2022/08/Coursework_ICC_22-23_FINAL.pdf)
- The Information for Candidates documents (https://www.jcq.org.uk/exams-office/information-for-candidates-documents)

Other actions which should be considered in relation to acknowledging AI use are:

- a) Students being reminded that, as with any source, poor referencing, paraphrasing and copying sections of text may constitute malpractice, which can attract severe sanctions including disqualification in the context of Al use, students must be clear what is and what is not acceptable in respect of acknowledging Al content and the use of Al sources. For example, it would be unacceptable to simply reference 'Al' or 'ChatGPT', just as it would be unacceptable to state 'Google' rather than the specific website and webpages which have been consulted;
- b) Students should also be reminded that if they use AI so that they have not independently met the marking criteria they will not be rewarded.

Other ways to prevent misuse

While there may be benefits to using AI in some situations, there is the potential for it to be misused by students, either accidentally or intentionally. AI misuse, in that it involves a student submitting work for qualification assessments which is not their own, can be considered a form of plagiarism. JCQ has published guidance on plagiarism which provides guidance on what plagiarism is, how to prevent it, and how to detect it (https://www.jcq.org.uk/exams-office/malpractice/plagiarism-in-assessments---guidance-for-teachersassessors/). Teachers and assessors must be assured that the work they accept for assessment and mark is authentically the student's own work. They are required to confirm this during the assessment process.

To prevent misuse, education and awareness of staff and students is likely to be key. Here are some actions which should be taken (many of these will already be in place in centres as these are not new requirements):

- a) Consider restricting access to online AI tools on centre devices and networks;
- b) Ensure that access to online AI tools is restricted on centre devices used for exams:
- c) Set reasonable deadlines for submission of work and providing reminders;
- d) Where appropriate, allocating time for sufficient portions of work to be done in class under direct supervision to allow the teacher to authenticate each student's whole work with confidence;
- e) Examine intermediate stages in the production of work in order to ensure that work is underway in a planned and timely manner and that work submitted represents a natural continuation of earlier stages;
- f) Introduce classroom activities that use the level of knowledge/understanding achieved during the course thereby making the teacher confident that the student understands the material;
- g) Consider whether it's appropriate and helpful to engage students in a short verbal discussion about their work to ascertain that they understand it and that it reflects their own independent work;
- h) Do not accept, without further investigation, work which staff suspect has been taken from AI tools without proper acknowledgement or is otherwise plagiarised doing so encourages the spread of this practice and is likely to constitute staff malpractice which can attract sanctions.
- i) Issuing tasks for centre-devised assignments which are, wherever possible, topical, current and specific, and require the creation of content which is less likely to be accessible to AI models trained using historic data.

Identifying misuse

Identifying the misuse of AI by students requires the same skills and observation techniques that teachers are probably already using to assure themselves student work is authentically their own. There are also some tools that can be used. We explore these different methods below.

Comparison with previous work

When reviewing a given piece of work to ensure its authenticity, it is useful to compare it against other work created by the student. Where the work is made up of writing, one can make note of the following characteristics:

- · Spelling and punctuation
- · Grammatical usage
- · Writing style and tone
- Vocabulary
- · Complexity and coherency
- · General understanding and working level
- The mode of production (i.e. whether handwritten or word-processed)

Teachers could consider comparing newly submitted work with work completed by the student in the classroom, or under supervised conditions.

Potential indicators of AI use

If you see the following in student work, it may be an indication that they have misused AI:

- a) A default use of American spelling, currency, terms and other localisations*
- b) A default use of language or vocabulary which might not appropriate to the qualification level*
- c) A lack of direct quotations and/or use of references where these are required/ expected~
- d) Inclusion of references which cannot be found or verified (some AI tools have provided false references to books or articles by real authors)
- e) A lack of reference to events occurring after a certain date (reflecting when an AI tool's data source was compiled), which might be notable for some subjects
- f) Instances of incorrect/inconsistent use of first-person and third-person perspective where generated text is left unaltered
- g) A difference in the language style used when compared to that used by a student in the classroom or in other previously submitted work
- h) A variation in the style of language evidenced in a piece of work, if a student has taken significant portions of text from Al and then amended this
- i) A lack of graphs/data tables/visual aids where these would normally be expected
- j) A lack of specific local or topical knowledge
- k) Content being more generic in nature rather than relating to the student themself, or a specialised task or scenario, if this is required or expected
- The inadvertent inclusion by students of warnings or provisos produced by AI
 to highlight the limits of its ability, or the hypothetical nature of its output

- m) The submission of student work in a typed format, where their normal output is handwritten
- n) The unusual use of several concluding statements throughout the text, or several repetitions of an overarching essay structure within a single lengthy essay, which can be a result of Al being asked to produce an essay several times to add depth, variety or to overcome its output limit
- o) The inclusion of strongly stated non-sequiturs or confidently incorrect statements within otherwise cohesive content
- p) Overly verbose or hyperbolic language that may not be in keeping with the candidate's usual style
- *Please be aware, though, that AI tools can be instructed to employ different languages and levels of proficiency when generating content.
- ~However, some AI tools will produce quotations and references.

Automated detection

Al chatbots, as large language models, produce content by 'guessing' the most likely next word in a sequence. This means that Al-generated content uses the most common combinations of words, unlike humans who use a variety of words in their normal writing. Several programs and services use this difference to statistically analyse written content and determine the likelihood that it was produced by Al:

- OpenAl Classifier (https://openai.com/blog/new-ai-classifier-for-indicating-ai-written-text/)
- GPTZero (https://gptzero.me/)
- The Giant Language Model Test Room (GLTR) (http://gltr.io/dist/)

In addition, the JCQ awarding organisations are aware that AI detection will shortly be added to the existing tool Turnitin Originality (https://www.turnitin.com/ products/originality). This tool features an AI review of a student's work, reviewing a portfolio of evidence and, we understand, will indicate the likelihood of AI use.

These tools could be used as a check on student work and/or to verify concerns about the authenticity of student work. However, it should be noted that the above tools, as they base their scores on the predictability of words, will give lower scores for Al-generated content which has been subsequently amended by students. The quality of these detection tools can vary and Al and detection tools will continue to evolve. The use of detection tools should form part of a holistic approach to considering the authenticity of students' work; all available information should be considered when reviewing any malpractice concerns.

Reporting

If your suspicions are confirmed and the student has not signed the declaration of authentication, your centre doesn't need to report the malpractice to the appropriate awarding organisation. You can resolve the matter prior to the signing of the declarations.

Teachers must not accept work which is not the student's own. Ultimately the Head of Centre has the responsibility for ensuring that students do not submit inauthentic work.

If AI misuse is detected or suspected by the centre and the declaration of authentication has been signed, the case must be reported to the relevant awarding organisation. The procedure is detailed in the *JCQ Suspected Malpractice: Policies and Procedures* (https://www.jcq.org.uk/exams-office/malpractice/).

Awarding Organisation actions

The JCQ awarding organisations ensure that their staff, moderators and examiners are appropriately trained in the identification of malpractice and have established procedures for reporting and investigating suspected malpractice.

If AI misuse is suspected by an awarding organisation's moderator or examiner, or if it has been reported by a student or member of the public, full details of the allegation will usually be relayed to the centre. The relevant awarding organisation will liaise with the Head of Centre regarding the next steps of the investigation and how appropriate evidence will be obtained. The awarding organisation will then consider the case and, if necessary, impose a sanction in line with the sanctions given in the JCQ Suspected Malpractice: Policies and Procedures (https://www.jcq.org.uk/exams-office/malpractice/). The sanctions applied to a student committing plagiarism and making a false declaration of authenticity range from a warning regarding future conduct to disqualification and the student being barred from entering for one or more examinations for a set period of time.

Awarding organisations will also take action, which can include the imposition of sanctions, where centre staff are knowingly accepting, or failing to check, inauthentic work for qualification assessments.