

## Teacher Guide to EPQ and AI

Generative AI (GAI) has the potential to disrupt every single sector and industry now and into the future. The technology is also very fast paced, with new services and functionality being introduced seemingly daily. This makes the opportunity for students to critically engage in GAI an attractive topic for an EPQ, as often so little critical and reflective work is taking place at a quick enough pace to acknowledge and critique each iteration or new application. It can equally make an EPQ challenging for students where there is little existing and accessible literature on a topic or subtopic of AI. Our [student guidance on title writing](#) provides some key term starting points for students interested in AI. The following guidance however, is aimed at teachers whose students will require support during their EPQ assignment.

### **EPQ & AI**

As a coordinator or teacher of EPQ, you will want to encourage students to seek out topics that are interesting and motivational, but are also appropriately approached to allow them to access the full range of marks for their chosen unit and title. This guidance is designed to provide key advice to support EPQ centre leads and teachers, by framing guidance published by JCQ into the context of EPQ, so that teachers can feel confident in allowing students to make AI their chosen topic to explore. Whilst we provide this useful context based summary, we advise that the JCQ documents are read in full.

**AI:EPQ advice:** The **sole use** of AI tools **cannot** meet assessment descriptor requirements set out for the extended project qualification. AI tool use can **appear alongside** and influence **evidence** for which the candidate has independently created (i.e. without the use of AI tools) in order to meet the assessment descriptors. Candidates are required to reference each and every instance of AI tool use within their coursework submission, and failure to do so will be considered malpractice.

### **JCQ documents relating to coursework and AI:**

[AI Use in Assessments: Protecting the Integrity of Qualifications](#)

[Information for candidates Coursework assessments](#)

### **Key considerations for students to take for EPQ & AI**

JCQ provides clear guidance around student use of AI in any coursework assessed qualification, which includes EPQ. The key points for students to know are:

1. *"You (the student) can demonstrate your knowledge and understanding of a subject by using information from sources or generated from sources which may include the internet and AI."*
2. *"If you (the student) use the same wording as a published source (such as AI), you must place quotation marks around the passage and state where it came from."*
3. *"Where computer-generated content has been used (such as an AI Chatbot), your reference must show the name of the AI bot used and should show the date the content was generated.  
For example: [ChatGPT 3.5 \(https://openai.com/blog/chatgpt/\)](https://openai.com/blog/chatgpt/), 25/01/2024."*
4. *"The student must, retain a copy of the question(s) and computer-generated content for reference and authentication purposes, in a noneditable format (such as a screenshot) and provide a brief explanation of how it has been used."*
5. *"You (the student) must take care how you use this (AI generated) material - you cannot copy it and claim it as your own work."*
6. *"Don't be tempted to use any pre-prepared or (AI) generated online solutions and try to pass them off as your own work – this is cheating (malpractice)."*
7. *"When you (the student) submit any coursework for marking (i.e. your EPQ assignment), you (the student) will be asked to sign an authentication statement (i.e. a [Candidate record sheet](#)) confirming that you have read and followed these (JCQ) regulations."*

The above points cover key information that students will need to know prior to commencing their EPQ. The use of AI, where appropriately and clearly referenced, will ensure they do not fall foul of malpractice. It is also important for students to be prepared for the very real limitations of AI, where the reality of what AI can produce can be limited, bias or inaccurate. Students are required to complete sufficient work of their own to meet the assessment requirements of their EPQ unit choice, and generated outcomes will only be able to form part of the project (e.g. to generate initial ideas for a Performance or Artefact approach, or for comparison purposes between a human and a Chatbot for a Dissertation or Investigation approach).

When a student approaches their teacher with an AI topic or working title proposal for their EPQ, there are a number of considerations that should be made, some of which are unique to AI. The key AI specific points for teachers to know, copied from the JCQ guidance documents, are:

1. *“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.”*
2. *“The use of AI chatbots may pose significant risks if used by students completing qualification assessments (for the following reasons):*
  - a. *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.*
  - b. *(they) often produce answers which may seem convincing but contain incorrect or biased information.*
  - c. *(they) 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.”*

The above points are worth discussing with students interested in AI, as they could inspire a specific opportunity for critique, but also avoid a common pitfall of assuming AI is a reliable and unequivocal source of information.

In regards to misuse of AI, students considering AI will need to understand that the use of AI is permitted for assessments like the EPQ, but it must be appropriately referenced in the same way that any other source of information currently is. The below is true of any referencing in EPQ, but is specific to AI use in this instance:

1. AI misuse (and therefore malpractice) includes but is not limited to:
  - a. *“Copying or paraphrasing sections of AI-generated content so that the work is no longer the student’s own*
  - b. *Copying or paraphrasing whole responses of AI-generated content*
  - c. *Using AI to complete parts of the assessment so that the work does not reflect the student’s own work, analysis, evaluation or calculations.*
  - d. *Failing to acknowledge use of AI tools when they have been used as a source of information.*
  - e. *Incomplete or poor acknowledgement of AI tools*
  - f. *Submitting work with intentionally incomplete or misleading references or bibliographies.”*

Just as a reference to an academic journal, website or real person must be appropriately acknowledged within an EPQ assignment, so too must AI sources. Whilst this might feel particularly heightened for AI related EPQ assignments, this is no less a requirement than any other source of information.

This list summarises JCQ advised steps to take by centres where AI could be accessed and used by students during an assessment, EPQ or other none examined assessment (NEA):

1. Explain the importance of students submitting their own independent work.
2. Update your centre’s malpractice/plagiarism policy to include.
  - a. Acknowledgement of the use of AI
  - b. Clear guidance on how students should reference AI appropriately.

- c. Clear guidance on how students should acknowledge use of AI to avoid misuse.
3. Ensure teachers and assessors are familiar with AI tools, their risks and AI detection tools.
4. Consider students signing a declaration about the use and misuse of AI.
5. Issue all students a copy of the [JCQ Information for Candidates document](#)
6. Issue all students a copy of the [JCQ AI Use in Assessments: Protecting the Integrity of Qualifications](#)
7. Remind and reinforce to students the consequences of false declarations and outcomes of malpractice

Centres where students are completing GCSE and A level NEA components in any existing qualification (E.g. Art, Craft and Design) are already advised to follow these steps, with EPQ part of this range of impacted qualifications.

### **Acknowledging AI use in EPQ**

The JCQ guidance is clear in how students should acknowledge how AI has been used within any assessed piece of work, which for EPQ is their independent project. This paragraph states clearly the requirement for referencing:

*“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.”*

### **How to reference AI tool use for EPQ**

The following explains how to reference AI tool use, and is lifted directly from JCQ guidance.

*“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 noneditable 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 AI-generated content and how it has been used.”*

For the EPQ assignment, the [Project Activity Log](#) is the ideal place to record:

- what you have done (eg, from one week to the next)
- if you are working in a group, what discussions you have had
- any changes that you have or will need to make to your plans
- what resources you have found or hope to find
- what problems you are encountering and how you are solving them
- what you are going to do next

Students will be able to record any AI related activity in this document, and keep a separate document where they can save the questions, computer generated content, noneditable screen shots, and brief explanation statements from their AI activity.

**What might you expect to see students doing with AI during their EPQ?**

Depending on their unit approach, there are a wide and growing range of GAIs available that students may wish to critically explore and test as part of their assignment.

**Unit 1: Dissertation**

How AI is included in the working title should indicate the purpose of AI in the students assignment. With appropriate wording, it will be clear if the student intends to:

1. Carry out research around the topic of GAI related to a specific context or application, and quote outputs from one or more GAIs as evidence to support discussion and debate.
2. Compare GAI outputs to those of a human, in order to critique AI, and arrive at a judgement.

**Unit 2: Field Study/Investigation**

For the management of various types of research data, AI provides functionality that is impossible for humans to replicate, and therefore this unit approach may involve the use of a GAI by a student. Beyond appropriate referencing, the student may wish to critically review GAI outputs alongside a human analysis as follows:

1. Ask GAIs to provide answers to questions relating to big datasets (datasets too large or complex for human analysis). These answers would provide a source, alongside the required student research and analysis work of proportionate datasets.
2. The comparative analysis of the same datasets by both the student and a GAI, in order to arrive at solutions to a hypothesis about the potential for GAI use for data analysis.

**Unit 3: Performance**

Assessing the creative capabilities of a GAI vs the same human endeavour will still require a student to conduct all of the steps of a performance EPQ, not involving an AI. The GAI would then provide alternative outputs which under comparison and critique, could provide insight into the opportunities for GAIs in a particular sector. This could include:

1. Comparison of human creativity to the creative outputs of a GAI when completing the same task.
2. Use of a GAI to generate materials that can be critically evaluated through human performance to an audience, where the majority of student activity for their project involves review and reflection.

**Unit 4: Artefact**

Generative tools that provide stimulus to a creative process, such as initial inspiration or digital files that can be fabricated by CAM (computer aided manufacturing) equipment such as a 3D printer, will require careful referencing to the use of AI in these instances. The project titles chosen by students will need to acknowledge what part AI plays within the wider practical artefact making, and ensure it is proportionate to the required student activity. Examples could include:

1. Use of a GAI tool to generate manufacturing files, that allow the student to make an artefact and test it, specifically questioning the design capabilities of the GAI.
2. Appropriately referencing GAI outputs as part of wide-ranging research seeking inspiration prior to the design and development of an artefact, where the use of GAI is either a tool, or where GAI is under scrutiny as a replacement for human activity.

In all of the unit instances above, the use of AI is not to replace the students own assessed work, but to complement or provide sources of information to reference to and use. This follows JCQ guidance. The GAI in

each example is either:

- under critical review for its role within a sector, industry or existing process
- being tested alongside a comparable human activity
- being used as a tool to replace an activity impossible by a human
- providing stimulus or a reference source from which human activity will follow
- encourages the critical engagement in GAI's but not the use of them to replicate student work assessed for their EPQ assignment.

With sufficient and accurate referencing, students completing an EPQ on AI will have an opportunity to critique exciting and fast paced technologies within a field of their interest.