# The use of generative artificial intelligence (GenAI) tools in SQA assessments practitioner information and exemplification

# 1. Introduction

This document has been developed to support our updated stance on the use of generative artificial intelligence (GenAI) in SQA summative assessments. It gives examples of potentially acceptable and unacceptable uses. Given the rapid pace of technological change, it is impossible to create a definitive list of examples, and the appropriateness of GenAI use will depend on your specific assessment context. To help guide your decisions about possible use of GenAI in the assessment, and to ensure fairness for all learners, you should consider these three questions:

- 1. Will the use of GenAl tools **substitute** for the acquisition of key skills, knowledge and understanding by learners?
- 2. Will the use of GenAl tools **undermine** the need for learners to **demonstrate** genuine evidence of their skills, knowledge and understanding?
- 3. Are marks awarded for the activity which will be undertaken by GenAI?

### If the answer is 'yes' to any of these questions, then the use of GenAl for that purpose would be unacceptable.

Note, however, that this may be different where assessment arrangements have been agreed in advance. You can find information on assessment arrangements within the main position statement on GenAI.

### Additional points to remember:

• Conditions of assessment, as specified in the course documentation, must always be followed to ensure assessment fairness and the integrity of the qualification.

- If the use of GenAl tools is deemed acceptable in one part of an assessment for one course, this does not mean that their use is acceptable for the same part in all courses. Always check course documentation and marking criteria relevant to the course you teach and consider the three questions above.
- 'Reasonable assistance' guidelines must be followed. Take care that the use of GenAI does not provide assistance that you would not be allowed to provide.
- Learners should always acknowledge any use of GenAl so you can authenticate their work. In addition, learners can choose not to use GenAl tools if they wish.
- GenAl outputs can be inaccurate and exhibit bias. Learners should be made aware of this in preparation for any assessment which allows use of GenAl.
- Check if your centre has guidelines on using GenAI and ensure you are familiar with them. Links to additional resources are provided at the end of this document.

# 2. Acceptable and unacceptable use — examples

### Example: Music

Qualification level	National 5, Higher and Advanced Higher
Assessment type	Coursework: assignment
Example of acceptable use	Using GenAI to generate the lyrics for a composition in Music would be acceptable.
Example of unacceptable use	However, using GenAI to provide the text for the composing review would be unacceptable.
Explanation	This is because no marks are awarded in the marking criteria for the creation of the lyrics, and no underpinning SKU are being substituted by the use of GenAI.
	Asking GenAI to provide text for the composing review would not provide genuine evidence of a learner's ability.
Further considerations	Learners must acknowledge any use of GenAI in their work.

# Example: English (A)

Qualification level	National 5, Higher and Advanced Higher
Assessment type	Coursework: portfolio: writing
Example of acceptable use	It would be acceptable to use GenAI tools to suggest source material to research a piece of writing intended for use as part of Portfolio: writing coursework.
Example of unacceptable use	However, it would be unacceptable for learners to use GenAI tools to provide:
	<ul> <li>a model response which is specific to the learner's task</li> <li>key ideas or a specific structure or plan</li> <li>advice on how to rephrase wording</li> <li>corrections of errors in spelling or punctuation</li> </ul>
Explanation	This is because no marks are awarded in the marking criteria for the acceptable use in research outlined above, and no underpinning SKU are being substituted by the use of GenAI.
	Asking GenAI to provide text for the unacceptable uses listed above would not provide genuine evidence of a learner's ability.
Further considerations	Learners must apply critical thinking skills to any sources suggested by GenAI tools in order to evaluate their appropriateness, relevance and authenticity.
	Learners must acknowledge any use of GenAI in their work.

# Example: English (B)

Qualification level	Advanced Higher
Assessment type	Coursework: Project Dissertation
Example of acceptable use	It would be acceptable to use GenAI tools for suggestions of secondary sources for a Project: Dissertation.
Example of unacceptable use	However, it would be unacceptable for learners to use GenAI tools to provide:
	<ul> <li>a model response which is specific to the learner's task</li> <li>key ideas or a specific structure or plan</li> <li>advice on how to rephrase wording</li> <li>corrections of errors in spelling or punctuation</li> </ul>
Explanation	This is because no marks are awarded in the marking criteria for the acceptable use outlined above, and no underpinning SKU are being substituted by the use of GenAI.
	Asking GenAI to provide text for the unacceptable uses listed above would not provide genuine evidence of a learner's ability.
Further considerations	Learners must apply critical thinking skills to any sources suggested by GenAI tools in order to evaluate their appropriateness, relevance and authenticity.
	Learners must acknowledge any use of GenAI in their work.

# Example: NextGen HNC unit: Computing Foundations (J893 47)

Qualification level	HNC (SCQF 7)
Assessment type	Produce digital artefacts via practical assignments in open-book conditions
Example of acceptable use	Outcome 6 relates to learners' use of AI 'Apply AI to perform a vocational task.' The use of AI is obviously required for this outcome. There would be no restrictions placed on the use of GenAI in this outcome.
Example of unacceptable use	However, It would be unacceptable for learners to generate evidence for Outcomes 1–5. Outcomes 1, 4 and 5 are particularly susceptible to GenAI misuse in this regard.
Explanation	For example, Outcome 4 requires learners to 'apply programming methods' and AI is very well suited to generating code. Since this outcome is about learning to code, any use of AI for assessment purposes would not provide genuine evidence of a learner's ability
Further considerations	In common with many units from this group (computer science), acceptable use of AI is inherently limited because learners are required to demonstrate understanding of the principles of computing. This exemplification relates to the evidence requirements. Learners must acknowledge any use of GenAI in their work.

# Example: National Unit: Data Citizenship (J2HN 45)

Qualification level	SCQF 5
Assessment type	This unit contains two assessments — one for knowledge in closed-book conditions; one for product evidence via practical assignment under supervised conditions.
Example of acceptable use	While real data is preferred, sourcing data can be a problem and GenAI can generate specific datasets. It would be acceptable for practitioners to use GenAI to generate the dataset learners require for analysis (Outcome 3). Once the dataset is supplied to learners, they should not use GenAI to interpret the data, nor to produce visualisations.
Example of unacceptable use	This unit has significant potential for GenAI misuse. GenAI could generate all the required evidence. Centres will require processes to guard against this.
	The unit requires knowledge and product evidence. The use of testing (one of the options to generate knowledge evidence) is recommended. This would be done under controlled conditions. GenAl could be used to generate all the product evidence and safeguards will be required to prevent this. The product evidence may be produced 'under loosely controlled conditions', but, given the potential of GenAl to generate this evidence, it is recommended that product evidence is produced under controlled conditions (timing or duration is not important, but supervision is).
Explanation	This activity is acceptable because no marks are awarded in the marking criteria for the generation of the dataset, and no underpinning SKU are being substituted by the use of GenAI.
	Any use of GenAI for knowledge and product evidence would not provide genuine evidence of a learner's ability
Further considerations	In common with many units from this group (computer science), acceptable use of AI is inherently limited because learners are required to demonstrate understanding of the principles of computing. This exemplification relates to the evidence requirements. Learners must acknowledge any use of GenAI in their work.

# Example: Computing Science

Qualification level	Advanced Higher (and info on National 5 and Higher below)
Assessment type	Coursework: project
Example of acceptable use	It would be acceptable to use GenAI in the Advanced Higher project in these areas:
	<ul> <li>generating ideas or scenarios for a project (however generating the description would not be acceptable)</li> <li>checking spelling or grammar of text (however generating or re-writing text would not be acceptable)</li> <li>generating images, animations or content for web or games projects</li> <li>generating test data, for example to populate a database</li> <li>researching a new skill and/or knowledge (however the candidate still has to demonstrate this new skill/knowledge). GenAI would have to be acknowledged as a source of the research.</li> </ul>
Example of unacceptable use	However, it would be unacceptable for learners to use GenAl tools to provide:
	<ul> <li>written aspects of the project documentation, such as a description of the problem or evaluation</li> <li>design work required for the project</li> <li>code required to implement their solution, including the correction of any code during ongoing or final testing</li> <li>test plans</li> </ul>
Explanation	This is because no marks are awarded in the marking criteria for the acceptable uses outlined above, and no underpinning SKU are being substituted by the use of GenAI.
	Using GenAI for any other part of the project where the SKU are being assessed would not provide genuine evidence of a learner's ability.
Further considerations	The use of GenAI would not be acceptable in the National 5 or Higher assignments.
	Given that the coursework components are vital to the assessment of key practical coding competence, use of

Qualification level	Advanced Higher (and info on National 5 and Higher below)
	GenAI should not be used for production or testing (or more significantly correction) of any code.
	While N5 and Higher assignments do have some written aspects, these are short responses, and use of GenAl is not appropriate here as this would not provide genuine evidence of a learner's ability. The tasks themselves are fairly closed and candidates are asked to follow a design, so there is no acceptable use of GenAl in N5 and Higher assignments.
	Learners must acknowledge any use of GenAI in their work.

# Example: Physics

Qualification level	Advanced Higher
Assessment type	Coursework: Project
Example of acceptable use	It would be acceptable to use GenAI in the Advanced Higher project in these two scenarios:
	• A candidate is carrying out practical work for their project and does not have instructions on how to use a particular piece of apparatus, such as a travelling microscope. They do not have access to teacher support or a teacher who knows how to use the apparatus. The candidate decides to ask GenAl for instructions on how to use the apparatus.
	<ul> <li>A candidate is carrying out practical work for their project and does not have access to the standard laboratory textbooks, such as Tyler. They want to measure the curvature of a lens and don't have access to a spherometer. They decide to ask GenAI for instructions on how to measure the curvature without using a spherometer.</li> </ul>
Example of unacceptable use	However, it would be unacceptable for learners to use GenAI tools for any other part of the project.
Explanation	The instructions generated by GenAI should not give information such as range and interval of measurements or the number of repetitions. It would be appropriate to ask for instructions in this way, as it would not give them an advantage over other candidates and would be similar to a teacher explaining how to use the apparatus or reading experimental instructions from the likes of Tyler's <i>A Laboratory</i> <i>Manual of Physics</i> .
Further considerations	The GenAl output may contain errors or 'hallucinations' or still lack clarity. The instructions it provides may not, for example, match the apparatus available to the candidate. Therefore, having access to a teacher who could support them and explain how to use the apparatus would still be a better option.

# Example: Business education

Qualification level	Advanced Higher
Assessment type	Accounting — Project Business Management — Project Economics — Project
Example of acceptable use	<ul> <li>It would be acceptable to use GenAI tools for:</li> <li>suggesting or identifying secondary sources relevant to your research activity</li> <li>researching and developing your understanding of complex concepts</li> </ul>
Example of unacceptable use	<ul> <li>However, it would be unacceptable for learners to use GenAl tools to:</li> <li>create a model response which is specific to the learner's task</li> <li>generate key ideas or a specific structure or plan</li> <li>provide advice on how to rephrase wording</li> <li>synthesise arguments</li> </ul>
Explanation	This is because no marks are awarded in the marking criteria for the acceptable uses outlined above, and no underpinning SKU are being substituted by the use of GenAI. Asking GenAI to provide text for the unacceptable uses listed above would not provide genuine evidence of a learner's ability.
Further considerations	Learners must apply critical thinking skills to any sources suggested by GenAl tools in order to evaluate their appropriateness, relevance and authenticity. Learners must acknowledge any use of GenAl in their work.

# 3. Conclusion and next steps

The examples in this resource are designed to be thought-provoking and help you reflect on the SQA assessments you are involved with. As shown in the examples, the appropriateness of GenAI tools is highly context dependent. Existing SQA <u>authentication</u> processes also apply to GenAI and help prevent both intentional and unintentional misuse. Please continue to follow these processes to ensure learners' work remains genuine. Support and guidance are available to help you gain a deeper understanding of GenAI.

GenAl presents both risks and opportunities for the education community, with rapid advances in technology. SQA is committed to exploring its impact on qualifications and assessments, as outlined in our <u>corporate plan</u>. While this work will take time, we are focused on progressing in a way that maintains the integrity of our qualifications and ensures continued fairness for all learners. We continue to engage with learners, practitioners, and other stakeholders to better understand GenAl's impact on assessment and its broader implications for education.

Our position on GenAI will continue to evolve. We hope too that this exemplification document can grow as we learn from innovation happening across the sector.

# 4. National resources

Here are some resources to help you improve your own knowledge about GenAl tools. They include factual information on GenAl as well as discussion of the benefits, flaws and ethical issues surrounding the technology:

### Scottish Government

• Scottish Government — AI Strategy

### **Scottish AI Alliance**

- <u>AI Strategy for Scotland Scottish AI Alliance</u>
- <u>Artificial Intelligence (AI) Course | Free, Online, Beginner-Friendly Living with</u>
   <u>AI</u>

### **Education Scotland**

- <u>Teaching and Learning with Artificial Intelligence (AI) | Resources | Education</u>
   <u>Scotland</u>
- digilearnscot (Education Scotland digital skills site)

### SQA

- Generative artificial intelligence (AI) in assessments SQA
- Authenticating learners' work good practice advice for centre staff
- Home | SQA Academy

### Additional selected resources

#### **College Development Network**

• Artificial Intelligence (AI) — College Development Network

#### JISC

• Artificial intelligence — Jisc

#### **University of Edinburgh**

• <u>Teach AI Literacy Handbook — TRAILS.scot</u>

### **Daydream Believers**

• GenAl in Education Exploration Hub (daydreambelievers.co.uk)

#### EU resources

• Home — Generation AI

### UNESCO

<u>Artificial intelligence in education | UNESCO</u>