

Process Trail

A key thing to note before reading this process trail is that there is still a high degree of human input. While ChatGPT has written the text, the initial ideas and refinements have all come from the authors. This highlights that the process of iteratively prompting a Large Language Model requires subject area knowledge and the ability to critique AI outputs to identify the strengths and weaknesses.

Step 1

Following an initial planning session, the following key points were identified to be included in the blog article:

What is the state of the sector's response to GenAI?

- GenAI is here and needs to be seen as an opportunity. However, no coordinated sector response; largely driven by fragmented individuals within institutions. A sector-wide response would provide collective bargaining power, but also equality to ensure that all students at all institutions have access to the same resources.
- We know that GenAI represents an existential change to the sector (for example, current models of learning and assessment are potentially obsolete). The lack of coherent sector-level response means that many individual academics have been left to act on their own. Some have rejected it. Others have embraced it and are trying to encourage broader uptake. BUT what can the average lecturer do???
- **This blog is for people who want to adapt to GenAI in a way that does not require building their competence with AI** or taking on responsibility for teaching students AI literacy.

The many virtues of assessing the 'process'

- Key response is to consider the extent to which we grade the product versus the process in university assessment. Holistic competence-based assessment and not the decentralising value of 'knowing'. Process-focused assessment includes things like information literacy trails, iterative discursive feedback, portfolio assessments, etc.
 - AI (equality) - Process-based assessment can provide something of a stop-gap until everyone has access to same resource, by focusing on how

well students have used the tools available to them (as opposed to the quality of the tools).

- AI (embedded in learning) - Better prepares students for world of work by encouraging them to use AI critically.
- Competency - Process-based assessment is a more direct assessment of student information literacy and critical thinking than only assessing the final product.
 - Not all competencies are clearly assessable in the final product (e.g. professionalism and ethics).
- Pedagogy - Iterative process is best practice.
- Human interaction is still desirable, so let's lean into that!

How to manage the risks!

- How to manage workload associated with this?
 - Old model - Individual provides one formative and one summative essay.
 - New process - One group formative essay and process trail, and one individual process trail.
 - Possibly more work but better spread out and much more impactful for students.
 - Make assessment more focused on its purpose. Does it need to be an essay, can it be an annotated bibliography.
- How to grade process?
 - Basically the same as you would assess critical thinking in an essay; e.g. Selection of sources, justification of selection, understanding of content, ability to critique information, and ability to bring ideas together from across multiple sources.
 - Grade the actual skills that we want students to develop, not just what they look like in a final product.
- We could take this further and embed AI Literacy as a competency into modern curricula, which might look something like...
 - Assessing student use of different GenAI platforms for different tasks etc.

Step 2

Using ChatGPT 4o1, the above text was pasted along with the following prompt:

"I am writing a blog article for Advance HE, below is the outline for the blog that I would like you to write. Please use this framework and base your blog around this. Please write the blog article for me, making sure you use UK English throughout and pitch at

the level of higher education academics, but do not assume that they have any understanding of AI or competency-based assessments.”

Output (formatted for clarity):

AI: Actual Intelligence – Could Embedding GenAI into Assessment Promote the Aims of Higher Education?

The advent of Generative Artificial Intelligence (GenAI) has sent ripples through the higher education sector. As we stand on the cusp of a new era, GenAI presents both unprecedented opportunities and challenges for educators and institutions alike. But amid the flurry of individual responses and fragmented approaches, a pressing question emerges: how can we harness GenAI to advance the fundamental aims of higher education?

The State of the Sector’s Response to GenAI

GenAI is no longer a distant prospect; it is a present reality reshaping the educational landscape. Yet, the sector’s response has been anything but unified. Individual academics and departments within institutions are making isolated decisions—some embracing the technology with open arms, others viewing it with scepticism or outright rejection.

This lack of a coordinated sector-wide strategy not only hampers our collective bargaining power with technology providers but also risks creating inequalities among institutions. Without a unified approach, students may face disparities in access to GenAI resources, leading to an uneven playing field in both learning and assessment.

Moreover, the transformative potential of GenAI signals a possible obsolescence of traditional models of learning and assessment. Essays and exams, long-standing staples of academia, may no longer suffice in measuring student competence in a world where AI can generate content indistinguishable from human work.

What Can the Average Lecturer Do?

For many academics, particularly those without a background in artificial intelligence or competency-based assessments, the prospect of integrating GenAI into their teaching may seem daunting. The good news is that adapting to this new landscape does not necessitate becoming an AI expert or overhauling one’s entire teaching philosophy.

Instead, lecturers can focus on shifting the emphasis from the final product of student work to the process by which it is created. This approach not only mitigates some of the risks associated with GenAI but also aligns closely with the core educational objectives of developing critical thinking, information literacy, and other essential competencies.

The Virtues of Assessing the 'Process'

Traditionally, university assessments have heavily weighted the final product—a completed essay, project, or examination. However, in an era where GenAI can produce polished outputs with minimal human input, this model faces significant challenges.

By contrast, process-focused assessment emphasises the journey students undertake to arrive at their conclusions. This includes evaluating their research methods, engagement with sources, iterative drafts, and reflections on their learning. Forms of process-based assessments might involve:

- Information Literacy Trails: Documenting the steps taken to locate, evaluate, and utilise information sources.
- Iterative Discursive Feedback: Encouraging ongoing dialogue between students and educators throughout the development of an assignment.
- Portfolio Assessments: Compiling a range of works that showcase the student's progression and breadth of skills.

Levelling the Playing Field

Focusing on the process helps address the inequality in access to GenAI tools. By assessing how well students use the resources available to them—rather than the inherent quality of those tools—we ensure that all students are judged on their competencies, not their access to technology.

Preparing Students for the Real World

Embedding GenAI into assessments also mirrors the realities of the modern workplace, where AI tools are increasingly prevalent. By encouraging students to engage critically with GenAI, we equip them with the skills to navigate and leverage these technologies effectively in their future careers.

Direct Assessment of Competencies

Process-based assessments allow educators to measure competencies that are not always evident in a final product. Skills such as critical thinking, ethical reasoning, and professionalism become more visible when the steps leading to the outcome are transparent.

Maintaining Human Interaction

Despite the rise of AI, human interaction remains a cornerstone of effective education. Process-focused assessments naturally foster more engagement between students and educators, promoting richer learning experiences through dialogue and feedback.

Managing the Risks and Workload

One concern with shifting to process-based assessment is the potential increase in workload for educators. However, with thoughtful design, this approach can be both manageable and rewarding.

Consider the traditional model: an individual student submits one formative essay and one summative essay. The new model could involve:

- Group Formative Work: Students collaborate on an initial assignment, promoting peer learning and reducing the marking load.
- Individual Process Trails: Each student maintains a record of their research and development process, which can be reviewed more efficiently than lengthy essays.

While this may represent a different distribution of effort, the workload can be balanced and may even become more impactful for students, as they receive more targeted feedback on specific skills.

Reimagining Assessment Formats

It's also worth questioning whether traditional essays are always the most appropriate assessment method. Alternative formats like annotated bibliographies, reflective journals, or multimedia presentations might better align with learning objectives and be less susceptible to GenAI-generated content.

Grading the Process

Assessing the process involves evaluating the same critical thinking skills traditionally sought in essays, such as:

- Selection of Sources: Are students choosing relevant and credible materials?
- Justification of Choices: Can they explain why they selected particular sources or approaches?
- Understanding of Content: Do they demonstrate a clear grasp of the material?
- Ability to Critique Information: Can they analyse and question the information they've gathered?
- Synthesis of Ideas: Are they effectively integrating concepts from multiple sources?

By focusing on these elements, educators can grade the actual skills they want students to develop, rather than just the veneer of those skills presented in a polished final product.

Embedding AI Literacy into the Curriculum

Looking ahead, there is an opportunity to formally incorporate AI literacy into modern curricula. This could involve:

- Assessing the Use of GenAI Platforms: Evaluating how students utilise different AI tools for various tasks.
- Critical Engagement with AI: Encouraging students to reflect on the ethical and practical implications of AI in their field.
- Developing AI Competencies: Teaching students not just to use AI, but to understand its limitations and potential biases.

Conclusion

GenAI is reshaping the landscape of higher education, but it need not be a threat to the core aims of teaching and learning. By embracing process-based assessments and focusing on the development of essential competencies, educators can turn this challenge into an opportunity.

This approach not only mitigates the risks associated with AI-generated work but also enriches the educational experience, preparing students for a world where AI is an integral part of professional life. By leaning into human interaction and the cultivation of

actual intelligence, we reaffirm the irreplaceable value of educators and the transformative power of higher education.

Call to Action

As academics and institutions, it's time to come together to develop coherent strategies for integrating GenAI into our teaching and assessment practices. By sharing best practices and supporting one another, we can ensure that all students benefit equally from these advancements.

Let's seize this moment to redefine our approaches, enhance our pedagogies, and continue to fulfil the noble aims of higher education in an ever-evolving world.

Step 3

The initial output was read and critiqued by the authors, a series of iterative prompts were then used to refine sections of the text. These prompts were designed to either refine the text, add context or adjust wording to be more suitable for the target audience.

3.1 Prompt

Thank you; this is a good starting point. I will now ask you to refine sections of this original output.

For the section titled 'Introduction and rationale - What is the state of the sector's response to GenAI?', please write an introductory section of around 200 words that explains the rationale for the blog and makes the audience want to engage with our method of responding to the challenges raised by GenAI in Higher Education. Remember that the audience might be sceptical of our approach or the need for it. GenAI is here and needs to be seen as an opportunity. However, there is no coordinated sector-level response, as it is driven mainly by fragmented individuals within institutions. A sector-wide response would provide collective bargaining power for the sector as a whole but also equality to ensure that all students at all institutions have access to the same resources. We know that GenAI represents an existential change to the sector (for example, current learning and assessment models are potentially obsolete). The lack of coherent sector-level response means that many academics have been left to act independently. Some have rejected it, others have embraced it and are trying to encourage broader uptake, BUT what can the average lecturer do??? This blog is for people who want to adapt to GenAI in a way that does not require building their competence with AI or taking on responsibility for teaching students AI literacy. Key

response is to consider are the extent to which we grade the product versus the process in university assessment. Holistic competence-based assessment and not the decentralising value of 'knowing'. Process-focused assessment includes things like information literacy trails, iterative discursive feedback, portfolio assessments, etc.

3.1 Output

The advent of Generative Artificial Intelligence (GenAI) is not a distant prospect but a present reality in higher education. While it poses significant challenges to our traditional models of learning and assessment, it also offers unprecedented opportunities for innovation. Yet, the sector's response has been fragmented, with individual academics and institutions navigating this new landscape in isolation. This lack of a coordinated approach not only diminishes our collective bargaining power but also risks creating inequalities among students who may not have equal access to GenAI resources.

GenAI represents an existential shift for our sector; established methods of teaching and evaluating students may no longer suffice. Some educators have embraced this change, integrating GenAI into their pedagogy, while others remain cautious or resistant. Amidst this uncertainty, a pressing question arises: what can the average lecturer do without becoming an AI expert or assuming the responsibility of teaching AI literacy?

This blog seeks to address that very question. We propose a shift in focus from grading solely the final product to evaluating the learning process itself. By adopting holistic, competence-based assessments—such as information literacy trails, iterative feedback, and portfolio work—we can better equip our students for a GenAI-influenced world. This approach not only aligns with best pedagogical practices but also ensures that we, as educators, continue to foster critical thinking and adaptability in our students.

3.2 Prompt

The next section to address is: The many virtues of Assessing the 'Process'

Following on from the introduction to the QAA blog that you have already written, please write approximately 150 words explaining why including process-focused assessment is a suitable method of adapting to GenAI; please make sure you include the points below.

AI (embedded in learning) - Better prepares students for world of work by encouraging them to use AI critically.

AI (equality) - Process-based assessment can provide something of a stop-gap until everyone has access to the same resource by focusing on how well students have used the tools available to them (as opposed to the quality of the tools).

Competency - Process-based assessment is a more direct assessment of student information literacy and critical thinking than only assessing the final product. Not all competencies are clearly assessable in the final product (e.g. professionalism and ethics).

Pedagogy - Iterative process is best practice, this approach embraces the fundamental principles of assessment as learning.

Human interaction is still desirable, so let's lean into that!

3.2 Output

The Many Virtues of Assessing the 'Process'

Embracing process-focused assessment presents a practical method for adapting to the challenges posed by GenAI. By concentrating on how students engage with and critically use available tools, we better prepare them for the modern workplace, where AI literacy is increasingly important. This approach also promotes equality, serving as a stop-gap until all students have equal access to GenAI resources. Instead of assessing the quality of the tools themselves, we evaluate how effectively students utilise what they have.

Process-based assessment offers a more direct measure of essential competencies like information literacy and critical thinking, which may not be fully apparent in a final product. It also allows us to assess attributes such as professionalism and ethics—qualities crucial to student development but often invisible in traditional assessments.

Pedagogically, focusing on the iterative learning process aligns with best practices, embracing the fundamental principles of "assessment as learning." This method naturally fosters human interaction through continuous feedback and engagement, which remains a vital component of effective education. By leaning into these interactions, we enhance the educational experience while addressing the challenges introduced by GenAI.

3.3 Prompt

Mitigating the risks

Following on from this section, please write approximately 100 words explaining how we can include process-focused assessment in university curricula without increasing the amount of time lecturers spend marking; please make sure to consider the principles of TESTA and consideration of more authentic assessments that match the product creation process.

3.3 Output

Mitigating the Risks

Including process-focused assessment need not increase lecturers' marking time. By applying the principles of TESTA (Transforming the Experience of Students through Assessment), we can design streamlined assessments that are both efficient and impactful. For example, adopting more authentic assessments that replicate real-world product creation processes can make evaluations more meaningful without adding extra workload. Techniques such as group projects, self-assessments, and peer reviews can distribute the responsibility of evaluation, fostering deeper student engagement. By aligning assessments closely with learning outcomes and focusing on quality rather than quantity, we can enhance the educational experience without burdening academic staff further.

3.4 Prompt

The final section of the blog is about Grading the process

Following on from the last section that you have already written, please write approximately 100 words explaining how to grade process-based assessments now and in a future where GenAI literacy is embedded into the curriculum; please make sure you include the points below.

How to grade the process? Basically the same as you would assess critical thinking in an essay, e.g. selection of sources, justification of selection, understanding of content, ability to critique information, and ability to bring ideas together from across multiple sources. Grade the actual skills that we want students to develop, not just what they look like in a final product. We could take this further and embed AI Literacy as a competency into modern curricula, which might look something like... assessing student use of different GenAI platforms for different tasks etc.

3.4 Output

Grading the Process

Assessing process-based work can be approached much like evaluating critical thinking in traditional essays. Rather than focusing solely on the final product, we consider elements such as the student's selection of sources, their justification for these choices, their understanding of the material, their ability to critique information, and how they integrate ideas from multiple references. By grading these skills, we concentrate on the competencies we aim to cultivate, not just their manifestation in a finished piece.

Looking ahead, as AI literacy becomes embedded in the curriculum, we can extend this method to assess how students employ different GenAI platforms for various tasks. This approach evaluates not only their proficiency with emerging tools but also their critical engagement with new technologies.

Step 4

At this point the refined article was re-read by the human others and minor tweaks made to wording. Once section was identified as being particularly weak and a further round of iterative prompting was used to enhance this.

Prompt

The section of text below is from the blog article, the human authors feel that this needs to be more compelling with an excellent selling point to ensure that academics at other institutions are willing and able to uptake this approach. Without adding to the word count please can you redraft this section to incorporate the above feedback.

Integrating Process-Focused Assessment Without Increasing Workload

Adopting process-focused assessment doesn't have to mean additional marking time for lecturers. By applying the principles of TESTA (Transforming the Experience of Students through Assessment), we can design streamlined, efficient, and impactful assessments that enhance learning outcomes. For example, instead of assessing a single final product such as a 2,500-word essay, we can break the task into smaller, interconnected assignments aligned with specific learning outcomes. This promotes an iterative and authentic approach to assessment, encouraging deeper student development. Consider the following transformation of a traditional essay: A bibliography of 10 sources, with a brief sentence explaining how each contributes to the aims of the final product. A fully-referenced, 1-page bullet-point plan laying out the essay's key arguments and structure. An 800–1,000 word essay focusing on critical synthesis and evaluation of ideas. These smaller, scaffolded tasks collectively take a similar amount of time to grade and provide feedback as a single essay (while

spreading student and lecturer effort across the semester). However, they offer multiple opportunities to build student competencies, foster meaningful lecturer-student dialogue, and encourage fairer, more transparent use of GenAI tools.

Output

Integrating Process-Focused Assessment Without Increasing Workload

Adopting process-focused assessment need not entail more marking. By applying TESTA (Transforming the Experience of Students through Assessment), academics can develop streamlined, efficient tasks that genuinely enhance learning outcomes. Rather than assessing a single 2,500-word essay, smaller, interconnected assignments allow students to demonstrate progress step by step, supporting deeper development and retaining authenticity.

For example:

- A bibliography of 10 sources, each briefly explained in terms of relevance to the final product
- A fully referenced, 1-page bullet-point plan outlining key arguments and structure
- An 800–1,000-word essay focusing on critical synthesis and evaluation

These scaffolded stages require no more grading time overall yet enrich feedback opportunities and spread effort evenly. Crucially, they offer repeated chances to build student competencies, intensify lecturer–student dialogue, and promote fairer use of GenAI tools. This model thus makes embracing a process-based approach both practical and impactful.

Step 5

The final stage of the process was running the finalised text through a Custom GPT in ChatGPT that had been trained on one of the author's writing styles. This produced the blog article that has been published on the QAA website.

Grammarly Pro was used throughout to correct minor spelling and grammatical errors.