

Revising an Essay or written assessment to accommodate challenges of Generative AI

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Background rationale

Due to the advent of Generative AI, any take-home written assessment needs careful consideration as we cannot guarantee the ownership of the outputs. One option is to shift from a **product-driven** to a **process-driven** assessment modality. There are several benefits to adopting this approach (sub-dimensions of EAT with which these align most strongly are identified).

1. Authenticity of learning (alignment with **AD2**):

- Product-driven: an essay written in isolation might not truly reflect a student's understanding. There is potential for external help, plagiarism, or over-reliance on a few sources.
- Process-driven: by assessing the process, we can ensure that students genuinely engage with the learning material and develop a deeper understanding.

2. Skills development (alignment with **AL2, AL4, AD2**):

- Product-driven: focuses mainly on the end result, which might emphasise content recall or presentation over other skills.
- Process-driven: emphasises skills like critical thinking, research methodology, collaboration, and iterative development. These are essential graduate skills.

3. Feedback and iteration (alignment with **AD2, AF1** and **AF2**):

- Product-driven: students receive feedback after the completion of their work, which might not be as beneficial for their learning journey.
- Process-driven: continuous feedback can be integrated, allowing students to refine their work, understand their mistakes, and improve in real time.

4. Reduction of academic misconduct alignment with **AD1**):

- Product-driven: there is a higher risk of plagiarism or purchasing essays from external sources.
- Process-driven: continuous assessment and engagement with the student make it harder to cheat. The journey becomes as important, if not more so, than the final product.

5. Holistic understanding (alignment with **AL1**):

- Product-driven: might encourage surface learning where students aim to produce an essay that meets the criteria but does not necessarily delve deep into the subject.
- Process-driven: encourages deep learning, where students engage with the material, ask questions, and seek to understand the broader context and implications.

6. Preparation for real-world challenges (alignment with **AL4** and **AD3**):

- Product-driven: real-world tasks rarely involve isolated tasks with a single endpoint.
- Process-driven: reflects the nature of many professional tasks where process, collaboration, problem-solving, and adaptability are key. It better prepares students for the challenges they will face in their careers.

7. Equity and inclusivity (alignment with **AD3** and **AL4**):

- Product-driven: some students might have access to better resources or external help, leading to inequities in assessment outcomes.
- Process-driven: by focusing on the process and providing consistent resources and support to all students, the assessment can be more equitable.

8. Adapting to the digital age and AI (alignment with **AL4** and **AD2**):

- In an era where information is abundant and AI tools can generate essays, the value of a traditional essay diminishes. Process-driven assessments can ensure that students are genuinely engaging with the material and not relying on external AI tools.

Potential solution

Shifting the assessment away from the final output to **the process by which the students arrived** at that output. By aligning key skill development with a tutorial system, students can receive guidance from personal tutors or academic advisors, to help with the development of these transferrable skills. A **portfolio assessment**, where students are required to record and reflect on the *research process* would offer a more robust and authentic assessment. A portfolio assessment is where students compile and present a curated collection of the work over a period of time to **showcase their learning journey**.

Any assessment needs to be AI robust and retain the development of the key skills and learning competencies that students currently develop during an essay- or written-based assessment. This approach works best in two stages – a formative essay as a group activity, followed by a summative essay as an individual activity. That way, the students practice the process and learn key skills as a group – utilising the benefits of collaborative learning – and then practice those competencies individually. The key skills being targeted during a formative and summative essay are:

1. Research Skills
2. Critical Thinking
3. Writing Skills
4. Synthesis
5. Referencing
6. Time Management
7. Feedback Reception and Integration:
8. Self-reflection
9. Organisational Skills

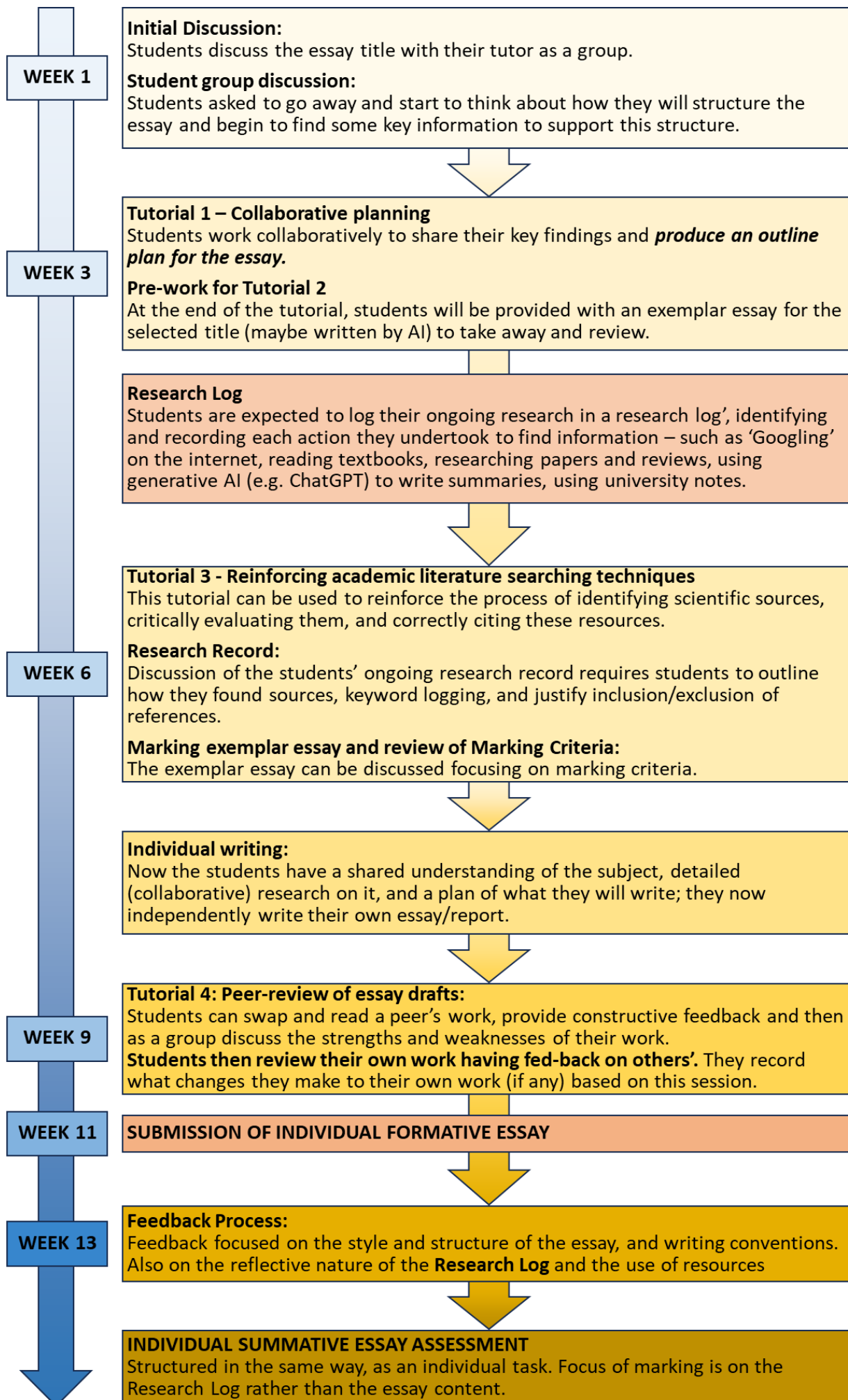
Suggested approach.

Activities are identified on a week-by-week basis. The rationale for these activities is highlighted, as is the alignment with the EAT framework.

Activity	Timing	Rationale	Link to EAT
<p>Tutorial 1 - Initial Discussion: Students discuss the essay title with their tutor as a group (4-6 students), and decide on the essay topic that all students in the group will work on. One way to do this would be to provide two or three potential titles and students can discuss and vote among themselves which title they will choose as a collective.</p> <p>Student group discussion: Students will then be asked to go away and start to think about how they will structure the essay and begin to find some key information to support this structure. Prior to the second tutorial they will be asked to submit an outline of their work, which includes a reflection of what they have learnt from the process and a declaration on whether they have used Generative AI, which tool(s), and how they were used.</p>	Week 1	This approach embeds student agency in the process, and should increase engagement and student buy-in to the process.	<p>Student agency in determining their assessment (AL3).</p> <p>Peer engagement and group-based learning to provide a collaborative learning environment (AF3).</p> <p>Meaningful assessment – the students choose a subject that is of interest and relevance to them (AD2).</p> <p>Inclusive practice – providing opportunities for students to mediate their assessment approach (AD3)</p>
<p>Tutorial 2 – Collaborative planning Students will work collaboratively in a tutorial, to share their key findings and <i>produce an outline plan for the essay</i> that incorporates a shared consensus of these key points. If using AI then the students will need to record the prompts that they use, which tools they selected and provide a brief justification for their use.</p> <p>Pre-work for Tutorial 2 At the end of the tutorial, students will be provided with an exemplar essay for the selected title which is at a lower-grade standard (this can either be ChatGPT generated, or tutor written). Prior to the third tutorial, students will be asked to think about whether the essay contains the key points that they have identified and to expand scientifically on the outline recording the process that they used to do this. Students will write a further reflection on what they have taken from this process.</p>	Week 3	<p>This process surfaces the planning and research process, and highlights its importance. It also identifies appropriate use of tools such as internet searching and AI.</p> <p>Recording the prompts that they use, which tools they selected and provide a brief justification for their use, encourages students to reflect on ethical use of AI as a tool.</p>	<p>Early opportunities for feedback on their approach (AF2).</p> <p>Collaborative working and peer feedback (AF3).</p> <p>Collaboration and discussion in an authentic manner, aligned to team-based activities in the work environment.</p>

<p>Research Log Students are expected to log their ongoing research in a research log, identifying and recording each action they undertook to find information – such as ‘Googling’ on the internet, reading textbooks, researching papers and reviews, using generative AI (e.g. ChatGPT) to write summaries, using university notes.</p>	<p>Weeks 3-6</p>	<p>The aim here is to encourage students to note and reflect on the research process. The research log encourages them to reflect on the sources they find – how accurate or reliable they are likely to be, and their relevance.</p>	<p>Building authentic research skills that will be of use in lifelong learning (AD2). Applying quality criteria to sources of information (AL1).</p>
<p>Tutorial 3 - Reinforcing academic literature searching techniques This tutorial can be used to reinforce the process of identifying scientific sources, critically evaluating them, and correctly citing these resources. Students will be expected to have started to reference the output that they have been building up since week 3.</p> <p>Research Record: Discussion of the students’ ongoing research record will require students to outline how they found the sources (i.e. what databases were used), keyword logging (i.e. what terms were searched for) and briefly justify why references were included or excluded via an annotated bibliography. Again, an AI declaration and reflection are included in the proforma.</p> <p>Marking exemplar essay and review of Marking Criteria: The exemplar essay given out in Week 3 can be discussed. This provides an object of discussion using the marking criteria. The criteria are explained to, and discussed with, the students.</p>	<p>Week 6</p>	<p>This encourages discussion with the tutor and with peers of the research process. Identifying strengths and weaknesses of different sources highlights information literacy, and ethical use of sources and AI.</p> <p>An opportunity to get two-way feedback from the tutor and each other.</p>	<p>Self-critique of sources identified, and own perceptions of these sources, encourages self-review and self-critique (AF4). Authentic framing of the research process (AL4, AD2). Clarifying what a high quality output looks like (AL1). Peer review of an exemplar essay encourages discussion and peer-based analysis, as well as encouraging self reflection (AF3, AF4).</p>
<p>Individual writing: Now the students have a shared understanding of the subject, detailed (collaborative) research on it, and a plan of what they will write; they now independently write their own essay/report.</p>	<p>Weeks 6-9</p>	<p>This enables them to experience an independent activity coming out of a collaborative experience, and show their own voice and style, as well as exhibit skills they have learned.</p> <p>Students get the opportunity to put their learning into practice.</p>	<p>Writing their assessment output with a clear idea of the criteria (AL1). Highlighting the importance of individual activity, and the roles of the learner in the academic process (AL3).</p>

<p>Peer-review of essay drafts: By now students should have a fairly complete formative draft, so this session can be used for peer review (again, the students need to be guided through the marking criteria by the tutor). Students can swap and read a peer's work, provide constructive feedback and then as a group discuss the strengths and weaknesses of their work.</p> <p>Students then review (and provide feedback on) their own work, having fed-back on others'. Students then record what changes they made to their own work (if any) based on this session and provide a reflection on what they learnt from engaging in the peer feedback approach.</p>	Week 9	With a shared understanding of the subject, and the same starting point, the students will have a frame of reference for the peer review process.	This reinforces the marking criteria (AL1), and provides a vehicle for peer review (AF3) leading to self-review (AF4). This is feedback on a draft, and so is a formative feedback opportunity, before the final output (AF2).
SUBMISSION OF FORMATIVE ESSAY	Week 11		
<p>Marking Process: Marking focuses on structure, format, and style, rather than content,. The main mark (c.80% weighting) is focused on the reflective research log, rather than the essay itself. Feedback focuses on process as this is a formative activity aimed at encouraging good writing practice</p>	Weeks 11-13	This highlights the importance of the process of creating the essay, rather than the product of the essay itself.	Reinforcement of the marking criteria (AL1). Embedding of authentic writing activities (AL4, AD2).
<p>Feedback Process: Students will have received feedback on their research record and formative essay. This will be provided via a basic marking rubric with <i>Absent, Unsatisfactory, Poor, Satisfactory, Good</i> and <i>Excellent</i> for the different marking criteria (i.e. no numeric mark is provided).</p> <p>Summative task: During this session, students will be provided with a selection of essay titles from which they can select one to write about in the summative task. A blank portfolio that aligns with the tasks undertaken for the formative essay will be provided, which the students will be expected to complete for the summative task. This will be an individual task and an opportunity to apply the skills developed, and feedback received, from the formative task. The summative assessment would again mark the research record and pass/fail comments on the essay assessment criteria.</p>	Week 13	This embeds the formative task in a summative assessment, as well as repeating the reflective activities for reinforcement. The summative approach is identical to the formative one, but undertaken individually.	Reinforcement of the marking criteria (AL1). Reinforcement of the assessment process and procedures (AD1). Reflection on the formative process will inform potential challenges or areas for enhancement in the essay assessment (AD4).



Essay and Production Log Proforma

Part 1: The essay (word guide ~1500 words)

*Insert your essay here. Note that the reference list at the end of your essay should contain at least 10 sources, and your citations and the reference list **must** be formatted in the Harvard style.*

Part 2: The Production Log (overall word guide ~1000 words)

Note: adjust the boxes to the size required.

Q1. Search Strategy:

- i) Identify the types of sources you used for background reading such as textbooks, encyclopaedias, web sources, AI tools for example, and for each type, briefly comment on their value, usefulness and any drawbacks. (**~150 words**)

- ii) List or tabulate the keywords and terms (including any AI prompts) used for your initial and refined searches (**not included in word guide**)

- iii) Using some examples from Q1i and Q1ii to illustrate the process, explain the general strategy you employed to search for the sources in your essay reference list. This might include how you grouped and combined your keywords (using OR/ AND operators), any special techniques you used such as phrase searching, using limits/filters, searching for variant spellings or choosing synonyms, enhanced prompts, to name a few examples. (**~400 words**)

Tip: you could include a screen shot(s) of your keyword search of the literature databases as a supporting figure(s) or create your own tables or flow charts.

Q2. Justification and evaluation of sources:

- a) Select **two** sources included in your essay reference list but each source must be a different type e.g. book, review article, original article, web site (i.e. do not choose two books for example).

For **each** source, justify why you selected that source. In your explanation, you should consider why you think that source is credible and relevant, and evaluate the information or content contained within the source.

Source 1: (~150 words)

Source 2: (~150 words)

- b) Select **one** source that you identified in your original search strategy which you did **NOT** include in your essay reference list. Using Harvard format, give the full reference of the source below and explain why you did not include this source, commenting on its credibility and authority. (**~150 words**)

Note: the reference of this source will not count in the word guide

Conclusion

As we move forward in the face of the challenges posed by Generative AI, it has become increasingly clear that we must shift our focus from a product-centric to a process-centric assessment approach. By embracing this transition, we can ensure that students are truly engaged in their learning journey, fostering essential graduate skills such as critical thinking and research methodology, while also helping to mitigate some of the risks of academic misconduct. This approach not only promotes a more authentic assessment experience but also helps to address equity and inclusivity concerns.

The proposed assessment strategy integrates a portfolio assessment that captures the student's learning journey in a meaningful way. This approach is designed to allow students to incorporate AI into their work if they choose to do so while ensuring that they are fully engaged academically. With a structured timeline that spans from topic selection to summative assessment, coupled with consistent feedback mechanisms, students will be well-equipped to apply key academic skills in a supported, developmental manner.

This new assessment approach is not only an effective way to evaluate student progress, but it is also the most persuasive. By prioritising the learning journey and promoting a holistic understanding of the subject matter, we can inspire our students to achieve their full potential. This approach will help them to develop the skills they need and foster a sense of self-confidence and independence to succeed in the graduate workforce.

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