# GenAI Application: Designing Lessons, Materials, and Assessments

Activity Workbook

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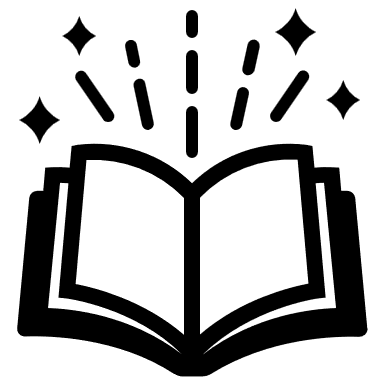
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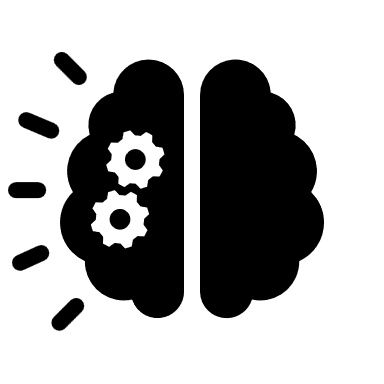
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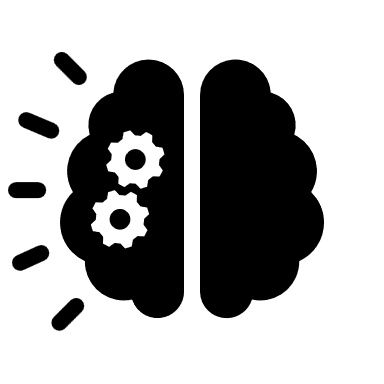
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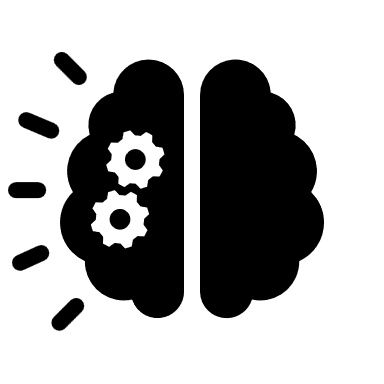
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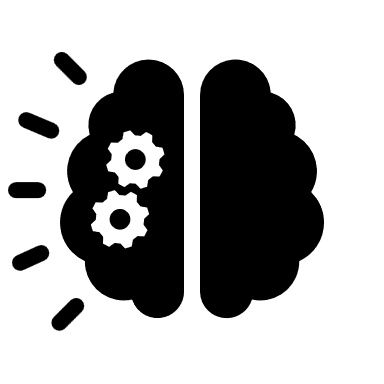
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# Overview

Welcome to this 60-minute session on designing lessons, materials and assessments using Generative AI (GenAI). This training is conducted online via Zoom, allowing you the learner to interact and collaborate using chat messages or via your camera. Please ensure you are set up somewhere quiet or you won’t be disturbed so you can make the most of the session.

# GenAI training that supports GTCS Professional Standards for Lecturers in Scotland’s Colleges

These training sessions on Generative AI tools align with the **GTCS Professional Standards**, equipping lecturers with the knowledge and skills to effectively integrate AI into their teaching practice.

By participating, educators will strengthen their **Professional Knowledge and Understanding** of how to embed AI-driven digital technologies to enhance learning, teaching, and assessment (2.2.9).

The sessions also support **Technologies and Resources for Learning** (2.3) by fostering **critical evaluation of AI tools (**2.3.1), ensuring educators stay **up to date with emerging technologies** (2.3.2), and develop skills to **embed appropriate digital technology** (2.3.3) while maintaining **cyber resilience and security** (2.3.4).

In terms of **Professional Practice**, the training encourages **inclusive engagement** (3.2) through AI-powered support tools, fosters **innovative curriculum design** (3.3) by exploring AI’s role in lesson planning and assessment, and enhances the **effective application of digital technologies** (3.4) to prepare learners for the evolving demands of work and life.

By attending, lecturers will gain the confidence to implement AI tools effectively, ensuring their teaching remains engaging, inclusive, and aligned with best practices in digital pedagogy.

# Pre-Session Tasks.

## Set up and sign up to GAI tools.

If you wish to participate during the session, which is optional, you may find it beneficial to have already signed up to the free tools I will be discussing. Please below a list of the tools and instructions for sign up. Please also remember with some free tools you will have limited number of prompts, or queries – for example free version of CoPilot gives you 30 prompts.

### Microsoft Copilot

Online instructions - [Personal AI Assistant | Microsoft Copilot](https://www.microsoft.com/en-us/microsoft-copilot/personal-ai-assistant)

You can use Copilot without creating an account, but signing up will give you access to additional features, such as a history of previous prompts.

### Claude AI

Online instructions - [Claude: How to Sign Up for The AI (2024) (guides.ai)](https://guides.ai/claude-how-to-sign-up/)

You will need to use a Google account or any personal email address (which will also require a phone number) to set up a Claude AI account.

### ChatGPT

Online instructions: [ChatGPT | OpenAI](https://chat.com)

You can use ChatGPT without creating an account, but signing up will give you access to additional features, such as a history of previous prompts.

### DuckGo-AI

[Duck.ai](https://duckduckgo.com/?q=DuckDuckGo+AI+Chat&ia=chat&duckai=1)

Both Duck.ai and AI-assisted answers are **free to use, with no account required**. Just click the above link and go. More information can be found here [DuckDuckGo’s AI Features: Private, Useful and Optional](https://spreadprivacy.com/ai-feature-upgrade/).

## Using Zoom

The session will take place over Zoom, a link will be sent to your email address where you can join the meeting. The meeting will not be recorded however you will have this activity booklet to refer to.

### Cameras

Having your camera on is appreciated but not mandatory. Guidance below, on using your camera with a background image, or blur so viewers cannot see your surroundings:

[How to Blur Your Background in a Zoom Call](https://www.techrepublic.com/article/how-to-blur-your-background-in-a-zoom-call/) (TechRepublic, 2023)

### Chat messaging

You can ask questions either during or via raising your hand. There will be opportunities throughout the session to pause and ask any queries.

# Storytelling with solid fillPre-session reading for beginners

## What is Generative AI?

Generative AI tools create new content, such as text, images, and audio, by analysing large datasets and using algorithms.

**Key Terms:**

**Model:** A trained function recognizing data patterns.

**LLMs (Large Language Models):** Examples include ChatGPT-4o and Claude 3.7

**Prompt**: A user’s input or question that guides AI outputs.

## Best Practices and Ethical Considerations

**Privacy:** Avoid entering personal or sensitive information in prompts.

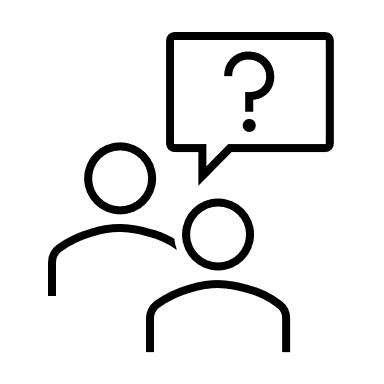
**Bias Awareness:** AI tools can reflect societal biases in their outputs.

**Data Usage**: Understand how tools store and use your data

* ChatGPT, by OpenAI [How your data is used to improve model performance | OpenAI Help Center](https://help.openai.com/en/articles/5722486-how-your-data-is-used-to-improve-model-performance)
* Claude by Anthropic [Privacy Policy \ Anthropic](https://www.anthropic.com/legal/privacy)

## Limitation of AI tools

Some Generative AI tools can excel at tasks like content generation, summarisation and translation, but can rely on static training data. For example, Claude's model 3.7 uses training data up to October 2024, [How up-to-date is Claude's training data? | Anthropic Help Center](https://support.anthropic.com/en/articles/8114494-how-up-to-date-is-claude-s-training-data) ChatGPT free and paid for version has various models, that will have different cut off dates. To view and compare these please go to here [Models - OpenAI API](https://platform.openai.com/docs/models) .With certain models they cannot provide current information and may redirect users to external sources for real-time queries.

****What’s one thing you hope AI could help with in your teaching?

# Learning Outcomes

By the end of this session, participants will be able to:

* Summarise key Generative AI concepts (from pre-reading or a previous workshop) that inform lesson design and assessment strategies.
* Identify a common ethical or bias scenario related to GenAI (e.g. AI “hallucinations” or biased outputs) and propose one immediate step to mitigate its impact in an educational context.
* Participants will be able to use at least one targeted prompt strategy (e.g. Role-Based or Template-Driven) to generate or refine a short lesson plan or assessment item.

# Agenda for today’s session

Welcome & what to expect (5 mins)

Prompts in practice (15 mins)

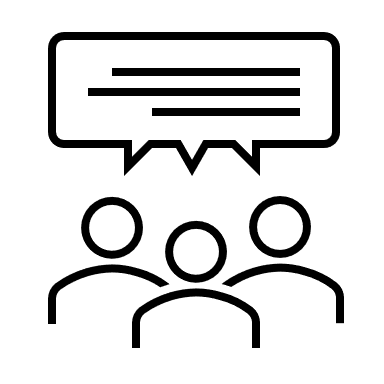
Keeping it ethical (10 mins)

Live Demo – AI lesson planner, using P.R.E.P (10 mins)

Post Course Task review - AI with SOLO and Revised Blooms (2 mins)

Post Course Task review – Using AI to Create a Quiz (2 mins)

Wrap-up and what's next (5 mins)

**Poll**

How familiar are you with using AI tools in education?

What excites or concerns you about using AI in teaching?

# Introduction to Prompt Types (15mins)

### Role-Based Prompt.

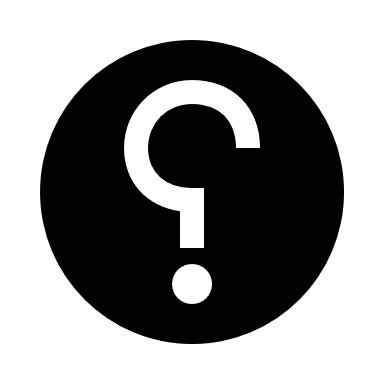
#### Why it works.

**Focused Context:** Assigning a specific role e.g. teacher, lecturer, trainer, ensures the response is tailored to the intended audience. This works well for crafting engaging, professional and user focused content.

#### Downsides.

**Reduced Flexibility**: Sticking to a single role might limit creativity or overlook important technical aspects.

**Bias and stereotypes:** The training data used in the LLM may lead to responses that reflect stereotypes associated with certain roles. This includes gender-related biases, where occupations may be predominantly portrayed as male or female, depending on societal norms embedded in the data. (Brown et al., 2020). To mitigate this, include in prompts inclusive language, including asking to create a response that avoids gender-specific pronouns.

**Example prompt:** ‘**Act as an experienced lecturer creating a lesson plan for beginner level AI learners’**

### Left Brain with solid fill**Pause and Reflect**

* **What role-based prompt might work for your teaching context?**
* **Does the prompt give you enough information?**
* **What additional information could enhance and tailor your prompt?**

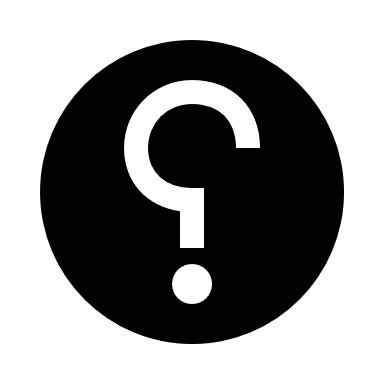
### Open-Ended Prompt

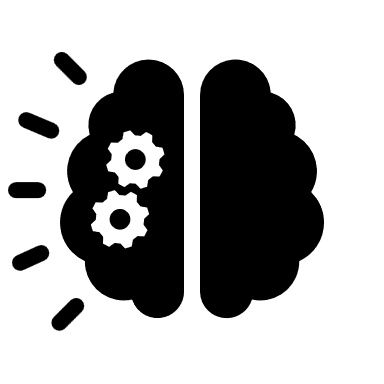
#### Why it works

* **Flexibility:** An open-ended prompt allows the AI tool to be more creative, potentially generating ideas you might not have considered.
* **Ease of Use:** This approach requires minimal setup, making it accessible for users who need quick results.

#### Downsides

* **Lack of Specificity**: Without detailed instructions, the AI tool may generate overly generic or unfocused responses.
* **Inconsistent response and tone:** The lack of role or structure might lead to an output that doesn't align with your expectations.

**Example prompt: ‘Tell me about AI ethics’**

****Pause and Reflect

* When could you use this style of prompt?
* Does it give you the information you need, or would need to refine/edit this?
* With this more flexible approach you can list the requirements with assigning a role or style. Noted you can also tweak and amend the outputs the AI tool gives you until you are happy with the result.

### Few-Shot Prompt

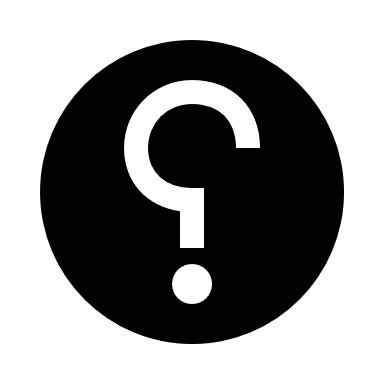
#### Why it works

**Clear Examples for AI:** By providing multiple examples this helps AI to understand the format, tone and content structure desired.

#### Downsides

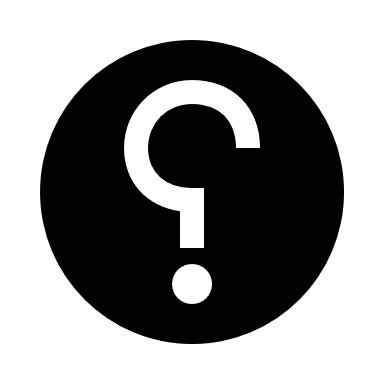
**Dependence on Examples:** Poorly chosen or irrelevant examples can skew the output, leading to descriptions that do not match your needs.

**Time-Intensive Setup:** Preparing examples can take extra time and effort.

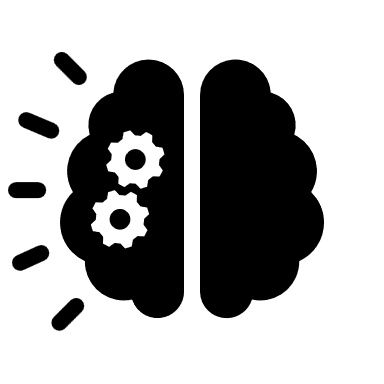
**Example ‘simple’ prompt: ‘Write three multiple-choice questions for an AI ethics class**

**Enhancing your prompts – add:**

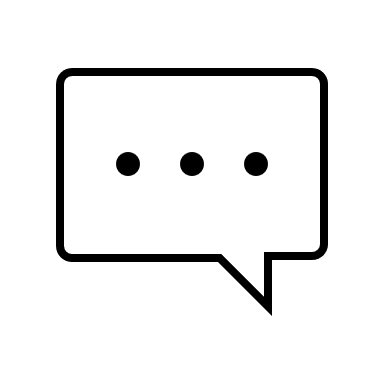
* Number of questions/answers
* Style of questions e.g. True/False.
* Level of learner
* Common misconceptions

**Example prompt:** Write three multiple-choice questions for an AI ethics class, each question should have one correct answer and three common misconceptions. Level of learner is SVQ level 8.

**If you adapt or change the prompt, you should get different answers – this includes when you use different AI tools – try it.**

****Pause and Reflect

* Copy/Paste prompt as is, into the AI tool to see results.
* What examples would you provide to guide the AI tool?

Add your ideas into the chat box/poll.

### Template-Driven Prompt

#### Why it works

**Structured Output:** A template ensures all necessary information is included, creating a complete and relevant course description.

**Consistency**: Useful for repeatable tasks or when creating multiple descriptions in a similar format.

#### Downsides

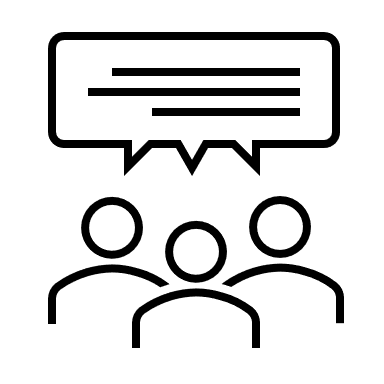
**Limited Creativity:** The rigid structure of it, may stifle creativity, including providing generic outputs.

**Requires Preparation:** Creating a good working template, takes upfront effort, which might not suit all users.

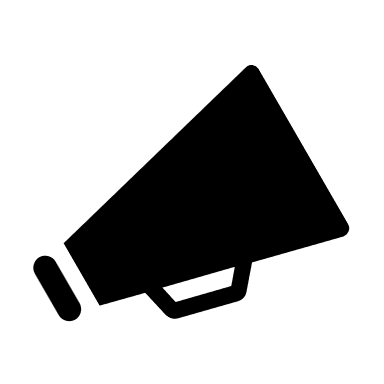
## Pause and Reflect



* What did you learn about crafting different types of prompts? Which type felt most intuitive to you and why?
* Can you recall a time when you used an AI tool and didn’t get the response you wanted? Looking back, do you think a different type of prompt could have helped?
* If you had unlimited access to AI tools, what would you create or solve using the techniques learned today?

**Poll**

How might understanding these prompt types change the way you use AI tools in the future? Share your thoughts in the chat or via poll.

* **What is your favourite style of prompt? Post in the chat box**

## **Post Session Reflections - Different Style Prompts**

* **Can you recall a time when you used an AI tool and didn’t get the response you wanted? Looking back, do you think a different type of prompt could have helped?**

# Ethical Considerations (Activity 20 mins)

This session will explore scenarios that challenge u to consider the ethical implications of using AI tools in educational settings. We will focus on two key areas.

Bias in AI-driven Grading Tools (Scenario A)

Privacy Concerns with AI-driven Personalised Learning (Scenario B).

Our goal is to engage in critical thinking, collaborative problem solving, with your insights into understanding how ethical considerations can inform better practices in this evolving landscape.

## Scenario A

You are trialling an AI tool that marks essays and gives feedback straightaway. After a few weeks you spot two worries:

* Essays that mention some cultural ideas keep getting lower marks.
* The tool often marks sentences as “wrong” just because the writer uses English in a different way (for example, second-language speakers).

You think the AI might be unfair.

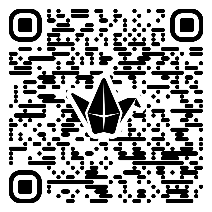
Please share your thoughts on the Padlet (scan the QR code).

Recent research though does suggest that students view feedback as how well they have done in an assignment, not by what lecturers understand that is it used to enhance their existing work. When AI was used to grade their work, they found it valuable, that AI could quickly give them feedback, though less personable, they could detach themselves from it. Taking onboard what was said, due to the more measured and constructive tone, compared to the comments made by their lecturers. With those students against AI giving them feedback, stating they were just happy with the current process and felt the feedback AI gave them wasn’t needed. [(Henderson 2025 el al)](https://doi.org/10.1080/02602938.2025.2502582)

### Guidance

Work individually or in small groups to address the questions.

Use the provided questions below as a roadmap, share your idea via the Padlet: [Padlet Scenerio A](https://padlet.com/fionamcconnellic/activity-the-ethical-use-of-genai-in-education-scenario-a-lc0dw5o4423u04pb)

**QR code**:

### Activity Information - Scenario A

1. **Spot the problem:** Let’s start by thinking about how we’d know something isn’t fair in AI marking
2. **Who loses out?** Now think about the real impact on students. What happens when they’re marked unfairly?
3. **Big ripple:** Let’s take a step back: what happens to a college or university if these issues are ignored?
4. **Fix it:** How can we make this better? What would you change?

## Scenario B

Your college is starting to use an AI-powered learning system that gives personalised suggestions to help students learn better.

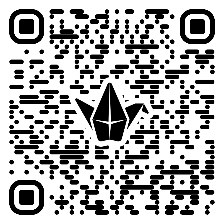
To do this, it collects a lot of data — like students’ backgrounds, how they like to learn, and how they behave online.

**One parent has raised a concern:**  
They’re worried this kind of data collection might invade students’ privacy or lead to certain students being treated differently without their permission — especially those who are more vulnerable.

### Guidance

Work individually or in small groups to address the questions.

Use the provided questions below as a roadmap, share your idea via the Padlet: [Padlet Scenario B](https://padlet.com/fionamcconnellic/activity-the-ethical-use-of-genai-in-education-scenariob-h4qw2z6888qha5zu)

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### Activity Information - Scenario B

**1. Privacy or help?**

How do we make sure AI is helping students without collecting too much personal information? Where’s the line?

**2. Who’s in charge or accountable?**

If something goes wrong with student data, like a breach or misuse, who should take the blame? How can we prevent it in the first place?

**3. What’s fair?**

What rules or values should guide how we use student data in education? Should the same rules apply to everyone?

**4. Make it safe**

If you were designing this system, how would you protect student privacy? What permissions or safeguards would you build in?

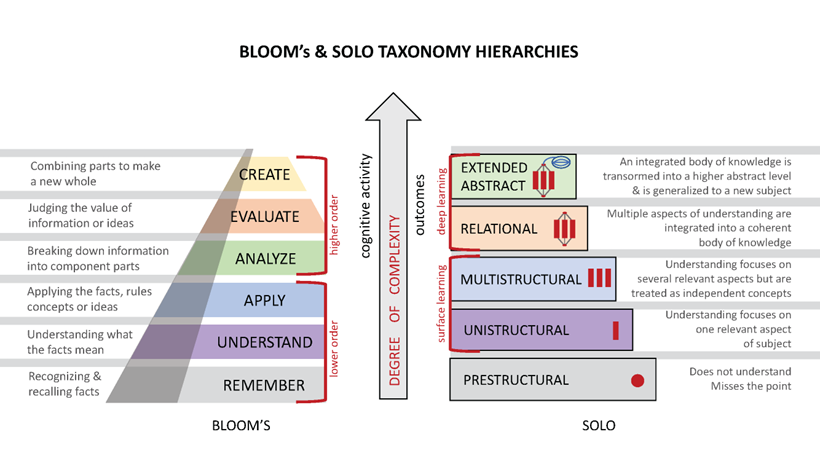
## Post Session Reflections – Ethical Concerns

How confident are you in recognising and correcting AI biases or privacy issues in your institution?

What additional resources – legal guidance, technical training, or peer collaboration, would most help you address these ethical concerns?

# Create a lesson plan Review of SOLO and Blooms taxonomy

Image by [Jessica Brand (2022)](https://commons.wikimedia.org/wiki/File:Bloom%27s_%26_SOLO_Taxonomy_Hierarchies_%C2%A9_2022_by_Jessica_Brand_is_licensed_under_CC_BY_4.0.png) [CC BY-SA 4.0](https://creativecommons.org/licenses/by-sa/4.0/deed.en)



## Post Course Activity - Learning Objectives using SOLO Taxonomy

Depending on your awarding body, you may have a list of learning objectives to use, or you may be able to generate your own based on the subject, and needs of the course.

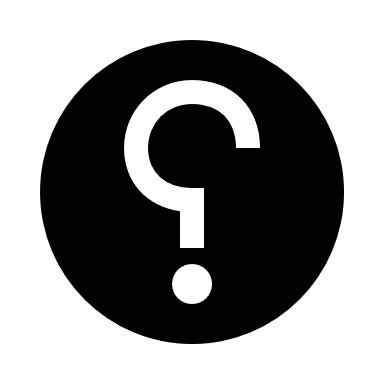
Even though generative AI has been around for a few years now, there is still limited research on using AI to create learning objectives based on pedagogical taxonomies is very much emergent, with educators validating any out puts for accuracy, alignment and clarity. Even still with some prompts I give, AI will give me information on learning styles, which is a theory not used anymore.

When using generative AI to create learning objectives based on SOLO taxonomy, the system can generate objectives that align with the five levels of understanding:

1. **Prestructural**: AI can generate objectives that assess basic knowledge or identify misconceptions.
2. **Unistructural**: Objectives focusing on simple connections or identifying single aspects of a topic.
3. **Multistructural**: AI-generated objectives that require students to describe multiple aspects of a concept.
4. **Relational**: Objectives that encourage students to analyse relationships between different elements.
5. **Extended Abstract**: AI can create objectives that challenge students to theorise, generalise, or apply knowledge to new domains.

More on SOLO as a review can be found here [SOLO Taxonomy | John Biggs](https://www.johnbiggs.com.au/academic/solo-taxonomy/#:~:text=SOLO%2C%20which%20stands%20for%20the,that%20they%20have%20got%20right.)

Using a single comprehensive prompt, edit the below with your topic, student level with grade, and any additional information you feel is relevant to the course, seen highlighted in yellow

**Example Prompt:**  
“I am designing a lesson on **[your topic and student level]** and want to create learning objectives that follow the five levels of the SOLO Taxonomy (Prestructural, Unistructural, Multistructural, Relational, Extended Abstract).

1. **Prestructural** – Provide an objective that helps identify misconceptions or gaps in knowledge.
2. **Unistructural** – Create a simple objective focusing on a single aspect of **[your topic and student level]**.
3. **Multistructural** – Generate an objective that requires learners to describe multiple aspects or factors of **[your topic and student level]**.
4. **Relational** – Provide an objective encouraging learners to make connections between the different aspects of **[your topic and student level]**.
5. **Extended Abstract** – Create an objective that asks learners to theorise, generalise, or apply knowledge of **[your topic and student level]** to a new context.

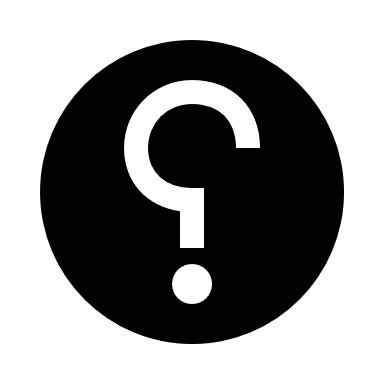
Please phrase each objective as a standard learning outcome, e.g., ‘By the end of this lesson, learners will be able to…’ and explain how each objective aligns with its respective SOLO level.”

## Left Brain with solid fillPause and Reflect

* Do the outputs align to your need?
* How could you further enhance these?
* What are the main differences between AI tool outputs?

## Post Course Task Revised Bloom’s Taxonomy (Activity)

As with SOLO, any AI-generated objectives should be reviewed and refined by yourselves to ensure that they truly match the demands and needs of the subject. However, in using AI tools, it may allow alternative insights into a course or subject more quickly, allowing you to explore and enhance this for your students. Emerging research in using AI to create learning objectives, based on pedagogical taxonomies is limited, what is beginning to emerge however is alternative taxonomies to use, when using Generative AI as it impacts critical thinking, which Bloom’s taxonomy may not be suitable for. Gonsalves 2024, gives examples of application when using AI tools, including the skills and descriptions. (6:2024). With Jain and Samuel 2025 stating that Blooms needs to be completely revised, to include the role of AI, and role of people. For example, a concept that AI gives, the student would then build upon this applying their own knowledge to the subject, critically analysing the outputs, so to give a final more rounded result. Included in this discussion is that AI cannot effectively create the higher levels of Blooms effectively, suggesting that ‘Creating’ requires a higher knowledge of the subject, including critical thinking which certain AI tools would struggle with. ([Zaphir and Hansen 2024).](https://www.timeshighereducation.com/campus/trouble-blooms-taxonomy-age-ai)

**Example prompt:**

#### Remember

**Prompt**:  
“I am designing a lesson on [your topic and level]. Please write a learning objective at the **Remember** level of Revised Bloom’s Taxonomy, focusing on straightforward recall or recognition of key information.

Use the format:  
‘By the end of this session, learners will be able to [BLOOMS TAXONOMY ACTION VERB] [CONTENT/CONCEPT].’

Also, provide a short explanation of why this objective aligns with the Remember level.”

#### Understand

**Prompt:**

Please write a learning objective at the **Understand** level of Revised Bloom’s Taxonomy, requiring learners to explain or summarise the concept in their own words.

**Use the format:  
‘**By the end of this session, learners will be able to [BLOOMS TAXONOMY ACTION VERB][CONTENT/CONCEPT].’

Also, include a brief statement about how this objective reflects the Understand level**.”**

#### Apply

**Prompt**:  
“For [your topic and student level**]**, please create a learning objective at the **Apply** level of Revised Bloom’s Taxonomy. This should involve having learners use or demonstrate knowledge in a new situation.

**Format it as:**  
‘By the end of this session, learners will be able to [BLOOMS TAXONOMY ACTION VERB] [CONTENT/CONCEPT].’

Add a sentence clarifying how it meets the Apply level criteria.”

#### Analyse

**Prompt**:  
“I want a learning objective at the **Analyse** level for **[**your topic and student level]. This objective should ask learners to break down or dissect information into its component parts and understand relationships and be based on Revised Bloom’s Taxonomy.

**Use the format:**  
‘By the end of this session, learners will be able to [BLOOMS TAXONOMY ACTION VERB] [CONTENT/CONCEPT].’

Please explain briefly how this aligns with the Analyse level of Revised Bloom’s Taxonomy.”

#### Evaluate

**Prompt**:  
“Please create a learning objective at the **Evaluate** level of Revised Bloom’s Taxonomy for [your topic and student level]. It should have learners make judgments or appraisals based on criteria or standards.

**Format it as:**  
‘By the end of this session, learners will be able to [BLOOMS TAXONOMY ACTION VERB] [CONTENT/CONCEPT].’

Include a short rationale for why these objective fits Evaluate based on Revised Blooms Taxonomy”

#### Create

**Prompt**:  
“For [your topic/content/concept and student level], craft a learning objective at the **Create level of Revised Bloom’s Taxonomy**. Have learners produce an original work, design a solution, or generate a new idea.

**Use the standard objective format:**  
‘By the end of this session, learners will be able to [ BLOOMS TAXONOMY ACTION VERB] [TOPIC/CONTENT/CONCEPT].’

Add a sentence explaining why this is a Create-level objective based on Revised Bloom’s Taxonomy.”

## Blooms and AI caution

AI tools can provide quick, alternative insights, enhancing course content.

*But.*

* AI-generated objectives should be reviewed to ensure they match the subject's demands.
* Emerging research suggests alternative taxonomies may be needed for AI-generated objectives, as Bloom's taxonomy may not fully address critical thinking.
* AI struggles with higher levels of Bloom's taxonomy, particularly 'Creating', which requires deep subject knowledge and critical thinking.

Jain, J. and Samuel, M. (2025) and Gonsalves, C. (2024)

## Post Session Reflections for Revised Bloom’s and SOLO

* Do the outputs align to your need?
* How could you further enhance these?
* What are the main differences between AI tools?

You can compare the different ChatGPT models via this link [Models - OpenAI API](https://platform.openai.com/docs/models)

**Caution for Academic Use**

* Always fact-check responses.
* Do not enter private data.
* Treat outputs as drafts or first-drafts.

# Lesson Plan using (P.R.E.P) (Activity)

With the recent advances in AI tools, now Copilot can give you a basic presentation based on a prompt or content you are creating, giving you a great starting point for your lessons. Using P.R.E.P, covered in session 1, you can quickly add/edit this to create a starter for 10, for your lessons. Just follow the highlighted sections.

If you have access to other AI tools, then copy/paste and compare the outputs as they will differ, leading to other ideas or outcomes.

Prompts and P.R.E.P

P – Introduce the question with a prompt

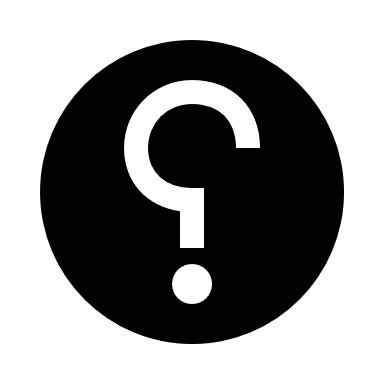
R – Give it a role or a voice

E – Be explicit in your instructions

P – Set the parameters of the answers

S – Ask what resources you want to supplement your output.

**Based on Milo @Notion4Ts and @DanFitzTweets tweet 2023, found in References list. Information on P.R.E.P can be found here** [**The AI Classroom | TeacherGoals Publishing**](https://teachergoals.com/books/educational-technology/the-ai-classroom/?v=7885444af42e)

**Example prompt:**

**Prompt**

* Create a lesson plan.

**Role**

* You are a [lecturer/curriculum designer/trainer/teacher] for the [insert subject], that teaches level [insert].

**Explicit**

* The lesson is for [insert subject/level]. I want the lesson to [introduces/covers a unit…/ X concept] being taught.
* Create an engaging starter activity to begin the lesson and set the context
* Create a group-based task on the content
* Create a task that allows for students to work alone
* Create a reflection task that will achieve the objectives
* The learning objectives for the attendees are [insert]
* The available resources are [insert e.g., laptops, flipchart, pens, post-its etc.]

**Parameters**

* The time for the lesson is [Insert]
* The level being taught is [insert]
* There are [X number] of students.
* The lesson will be delivered [online/in-person/offsite in…/hybrid]
* Include options in the lessons, for [x number] of students who have [insert learning needs]
* Consider the number of available resources, the time allocated to the session against the number of students in the lesson plan.
* Consider the student who have learning needs and what can be done to support them during the lesson.

**Supplement**

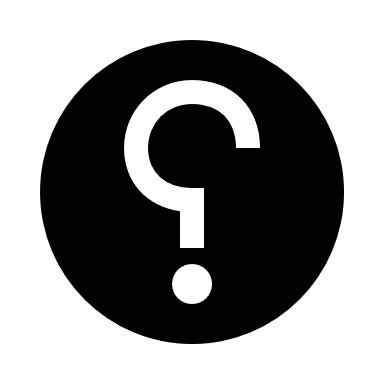
* Can you suggest/create a PowerPoint that includes slide titles and bullet points to support the above lesson plan and include a handout that supports the session to give to students?

## Left Brain with solid fillPause and Reflect

* How did the AI output compare to your expectations?
* What are the main differences between AI tools?
* Share one adjustment you made to refine the response.

# Post Course Task - Create a Quiz

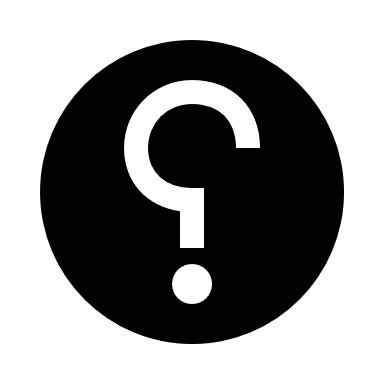
As subject matter experts, you excel at creating quizzes with accurate information. However, the challenge often lies in designing a quiz that tests students while ensuring the options are not overly difficult to choose from.

**Simple example prompt:**

* Create a multiple-choice exercise to test knowledge of [enter skills/topic].
* Make the answers around common misconceptions on this subject.
* The level of learning is for [enter level of learning] and/or [learning objectives]
* I need at [insert number of questions], that can include all of the above answers or have more than one correct answer included in each question.
* Also include True and false questions in this list.
* Can you also include feedback I could give a student when the answer is wrong to support their learning.
* Please list this in table format to make it easier to copy and paste, with the correct answer alongside each question.

**Example:**

Create a multiple-choice exercise to test knowledge of using generative AI in the classroom with student but make the answers around common misconceptions on this subject. The level of learning is for beginners, who teach at an education institution and have some awareness of what GAI tools are. I need at least 10 questions/answers that can include all of the above answers or have more than one correct answer included in each question. Can you also include feedback I could give a student when the answer is wrong to support their learning.  Also include True and false questions in this list.

**Advanced example prompt:**

Please design a multiple-choice exercise to assess knowledge of [insert skills/topic] at the [insert level of learning / SCQF level or similar].

1. Number of questions: Generate [insert number of questions] questions.
2. Question types: Each question may have (a) a single correct answer, or (b) more than one correct answer (‘Select all that apply’).
3. Answer formatting: Present each question with multiple-choice options (labelled A, B, C, D, etc.). Clearly identify the correct answer(s) for each question.
4. Feedback:
   * Correct Answer Feedback: Provide a brief explanation of why the correct answer(s) is/are correct.
   * Incorrect Answer Feedback: For each incorrect choice, suggest a hint or short explanation to guide learners toward the right concept without simply stating “this is wrong.” For example, highlight the misconception or prompt further thinking (e.g., “Think about how X applies to Y …”).
5. Alignment: Make sure each question aligns with the learning objectives or skills relevant to [insert learning objectives/skills].
6. Depth of Questions: Aim for a range of difficulty suitable for [describe the learners’ level, e.g., beginner, intermediate, advanced], potentially integrating real-world or scenario-based examples where relevant.

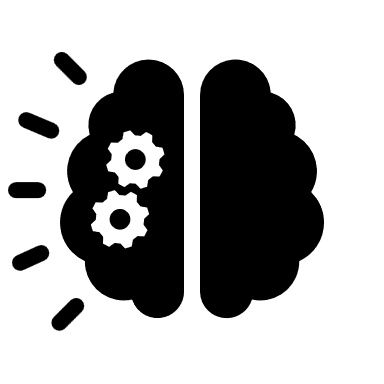
Finally, please present your answer in a clear, structured format (e.g., a list or table) so it’s easy to copy and share with learners."

**Example:**

Please design a multiple-choice exercise to assess knowledge of using Generative AI tools in education, to create student materials at beginner to intermediate level

1. Number of questions: Generate 10 questions.
2. Question types: Each question may have (a) a single correct answer, or (b) more than one correct answer (‘Select all that apply’).
3. Answer formatting: Present each question with multiple-choice options (labelled A, B, C, D, etc.). Clearly identify the correct answer(s) for each question.
4. Feedback:
   * Correct Answer Feedback: Provide a brief explanation of why the correct answer(s) is/are correct.
   * Incorrect Answer Feedback: For each incorrect choice, suggest a hint or short explanation to guide learners toward the right concept without simply stating “this is wrong.” For example, highlight the misconception or prompt further thinking (e.g., “Think about how X applies to Y …”).
5. Alignment: Make sure each question aligns with the learning objectives or skills relevant to using various AI tools, such as ChatGPT, CoPilot or Claude. Include editing and refining prompts and additional ethics which may be needed when using Ai to create lesson and with their students.
6. Depth of Questions: Aim for a range of difficulty suitable for, intermediate, advanced potentially integrating real-world or scenario-based examples where relevant.

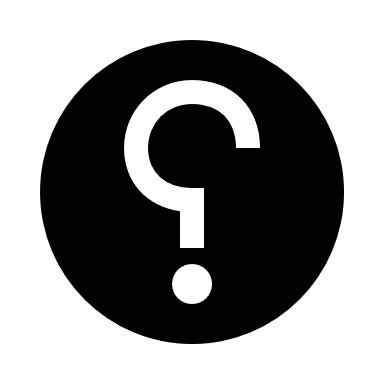
Finally, please present your answer in a clear, structured format (e.g., a list or table) so it’s easy to copy and share with learners."

Pause and Reflect

* Are the AI-generated materials accurate and factually, correct?
* Do the outputs align with the learning needs of your students?
* Did you notice any biases in the AI-generated content? If so, how could you address or correct them?

# Post Course Task - Using SOLO Taxonomy to create your assessment (Activity)

Some Generative AI tools may not provide up-to-date information, depending on the language model they use. For example, Claude 3.7 (Sonnet) by Anthropic is current only up to October 2024, meaning it cannot reliably offer information about events occurring after that date. By requesting references or suggestions for further reading, you can quickly evaluate the accuracy of the AI’s outputs. Review the below prompt, edit/review the highlighted areas.

**Example Prompt:**

“You are an educator who teaches at level [insert level] designing a [formative/summative assessment] for [insert subject/topic & level]. Please create an assessment and include examples that:

1. **Leverages SOLO Taxonomy**
   * Outline tasks at Prestructural, Unistructural, Multistructural, Relational, and Extended Abstract levels.
   * Show how each task corresponds to a deeper stage of learning and understanding.
2. **Adapts to Different Learning Levels**
   * Provide **differentiated** assessment options or variations so that learners with varying abilities/needs can demonstrate their understanding at an appropriate pace or depth.
3. **Incorporates Critical Thinking**
   * Include at least one question/activity that requires learners to **analyse**, **evaluate**, or **create**—especially if they are using GenAI tools for research or drafting.
4. **Allows for Different Assessment Types**
   * Suggest **multiple** assessment formats (e.g., written responses, presentations, portfolios, reflective journals, practical tasks) that educators can choose or combine based on their context.
5. **Includes Ethical & Safe AI Usage (If Relevant)**
   * If allowing students to use AI (e.g., ChatGPT) for research or brainstorming, provide guidelines on **data privacy**, **academic integrity**, and **referencing** AI outputs.
6. **Shows Authentic Connections**
   * Propose at least one **real-world** or **practical** assessment task so students can apply knowledge in a context relevant to their personal or professional lives.
7. **Assessment Criteria & Feedback**
   * Outline how you will **evaluate** or **score** each level of the SOLO tasks.
   * Explain **feedback mechanisms** (e.g., teacher/peer feedback, self-reflection, revision opportunities).
8. **References & Further Reading**

* Suggest relevant reading materials or online sources about the above assessment for learners to review, based on [insert topic].

## Left Brain with solid fillPause and Reflect

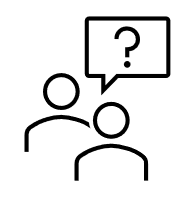
* How accurate are the outputs?
* Do the reference and further reading results match your expectations?

## Redesigning Assessments for Authentic Engagement

How could you redesign an assessment to make AI-generated content less valuable?

**Example Transformation:**

* Old Assessment: Write an essay on local history using online resources only.
* New Assessment: Interview a community elder, reflect on their story, connect to broader historical context.

 **What question or prompt could you ask to give ideas on how students couldn’t rely on using AI tools?**

### Post Course Activity

Take all you have learned today, including in the workbook - create a prompt for a formative or summative assessment that could support an assessment that AI could not be used for your topic area.

# References

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**P.R.E.P Based on** [(20) Milo | Notion4Teachers on X: "The P.R.E.P. model for creating prompts by @DanFitzTweets is one of the most effective I've used for teaching. It works like this: P - Prompt it R - Give a role E - Explicit instructions P - Give clear Parameters Here is an awesome example for a board game design lesson 👇" / X](https://x.com/Notion4Ts/status/1639228315520368643)

**AI Assistance Acknowledgement**

This workbook was developed with the assistance of generative AI tools to support content creation, language refinement, and idea organisation. The following details describe the AI tools utilised:

* **Tool Name & Version:** ChatGPT-4o and ChatGPT-o3
* **Provider:** OpenAI
* **Tool URL:** <https://www.openai.com/chatgpt>
* **Usage Details:** The AI tools were used to generate draft text, suggest content structure, and refine language. This information was based on the original workbook used in January’s CDN session, where elements were enhanced and activities were reduced to allow
* **Prompt Originator:** All prompts were authored by Fiona McConnell
* **Date of Use:** April & May 2025
* **Role of AI Responses:** The AI-generated content was used as a resource to inform and enhance the final text; all outputs were carefully reviewed and edited before inclusion.