



# Generative AI Based Activities

## Problem Based Learning and GenAI

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### Description

Problem Based Learning (PBL) is an active learning style that requires students to drive their learning. PBL brings complex social or industry problems to the classroom. Students can work in a group or individually in defining and resolving the problem.

### Objectives

- Active learning
  - Through engaging in the overt application of their education, learners are engaging in metacognition about their learning. This tends to enhance the learning.
- Student Centered
  - Students drive the topic, contents and form of the activity.
- Application
  - The activity provides an authentic assessment of the learners understanding and ability to integrate all aspects of learning in finding the solution of a problem.

### Objectives AI

- Skill development
  - Using ai leading to understanding the strengths and limitations of the tool
- Prompt engineering
  - Student are required to rework the prompts until it yields a generated result appropriate to complete the assignment.

## Instructor Prep

- Determine scope and direction for the activity
- Assess students at appropriate level for the activity

## Steps for Activity

- Instructor describes assignment and takes questions.
- Instructor details the appropriate use and limitations on AI use for the activity.

## Activity Structure

- Student(s) select a topic and brainstorm some ideas to build their prompt around.
- Student(s) Prompts AI using their ideas and the sample prompts below.
- With an example appropriate for the activity developed, Student(s) assess the details identified.
- Student(s) determine the scope and direction of the problem.
- Student(s) research and create possible approaches based on scope and direction.
- Student(s) check in with AI for its solutions.
- Student(s) bring together the recommendations from human and AI sources
- Summative
- Student(s) prepare a final document for a professional audience
- Student(s) prepare an accompanying reflection document where they detail and assess AI's recommendations, providing rationale for the changes they made for their final professional document.

## Sample Prompts

"I am taking a course on <Course Subject> in University. I need you to create a fake client who is looking to hire me to resolve a <topic> issue for them. Please create a scenario that details the problem to be solved, the <topic> parameters, the <context of the issue's environment>, any constraints, the budget and the timeframe for completion.

## Design Example

I am taking a course on industrial design in University. I need you to create a fake client who is looking to hire me to resolve a design issue for them. Please create a scenario that details the problem to be solved, the design parameters, the material used in the existing site, any design constraints, the budget and the timeframe for completion.

## Social Work Examples

I am taking a course on social work in University. I need you to create a fake client who is looking to hire me to resolve a social issue for them. Please create a scenario that details the problem to be solved, the issue parameters, the nature of the environment where the issue is situated, any specific constraints, the budget and the timeframe for completion.