Supplementary Material

Task–Instruction–Context (TIC) Based Prompt Examples for Assessment Design

Associated Paper: *Educator-GenAI Partnership Model for Assessment Design to Foster Higher-Order Thinking*

Introduction

This supplementary document provides a curated set of Task–Instruction–Context (TIC) prompts[1] used during the development of the Educator-GenAI Partnership Model. These four (4) comparative examples for poor vs good prompts demonstrate how structured prompting supports the design of higher-order thinking (HOT) assessment tasks, rubrics, and integrity-focused workflows. The material is provided to enhance transparency, reproducibility, and practical application of the model presented in the main paper. We have generated these outputs using ChatGPT free version (GPT-5.4).

Section 1 – Task–Instruction–Context (TIC) Prompt Framework Overview

The TIC framework provides a structured method for designing GenAI prompts that support higher-order thinking (HOT) and constructive alignment. TIC ensures that prompts are explicit about:

(a) what is being asked,

(b) why it is being asked, and

(c) how the output will be evaluated.

Poor Prompt vs TIC based Prompt

- ***Poor Prompt:*** "Create an assignment for networking students."
- ***Good Prompt (Improved TIC based Prompt):*** "Task: Design a HOT-aligned assessment task for a second-year networking unit. Instruction: Require students to analyse, evaluate, and justify network design decisions. Context: Ensure the task includes authentic constraints, requires reasoning, and cannot be completed through simple recall."

The examples in this document demonstrate how TIC transforms vague or low-quality prompts into precise, pedagogically aligned ones that support the Educator–GenAI Partnership Model presented in the main paper.

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[1] In HBP education's must reads: Effective course design – Ideas to enrich and evolve your syllabus (Link),

Example 1:

Poor Prompt:

"Create a higher-order thinking question about business ethics."

GenAI Output:

Here is a **higher-order thinking (Evaluate level – Bloom's Taxonomy)** question designed to prevent descriptive responses and require judgement, comparison, and justification:

Higher-Order Thinking Question – Business Ethics

A multinational technology company discovers that one of its overseas suppliers uses legally permissible but ethically questionable labour practices (e.g., excessive overtime in unsafe conditions). Terminating the contract would significantly increase production costs and lead to layoffs in the home country. Continuing the contract would maintain profitability but risk reputational damage.

Question:

Using **two ethical frameworks** (e.g., utilitarianism, deontology, virtue ethics, stakeholder theory):

Evaluate the most ethically justifiable course of action for the company.
Compare how each framework would assess the situation and **defend** your final recommendation with a reasoned argument.

Your response must:

- Apply both frameworks explicitly
- Analyse competing stakeholder impacts
- Weigh short-term and long-term consequences
- Present a clear, justified conclusion

Good Prompt:

T – Task
Design a case-based assessment task for an undergraduate Business Ethics course.

I – Instruction

The task must target Bloom's Evaluate level by requiring students to assess competing ethical frameworks (e.g., utilitarianism vs deontology) and determine which framework provides the stronger ethical justification in a complex business dilemma.

C – Context
The task must:

1. Require comparison of at least two ethical theories
2. Require explicit justification and defence of one position
3. Include a realistic business scenario involving conflicting stakeholder interests, financial trade-offs, and reputational risk
4. Prevent descriptive responses by requiring evaluative judgement
5. Include at least one contextual constraint that limits generic AI-generated answers (e.g., reference to course-specific material or decision rationale process)

Using the above requirements, generate a 500-word case-based assessment task that compels students to make and defend a reasoned ethical judgement.

GenAI Output:

Case-Based Assessment Task: Evaluating Ethical Decision-Making in Corporate Outsourcing

Background Scenario

Aurora Fashions Ltd. is a mid-sized Australian apparel company known for its commitment to sustainability and ethical sourcing. The company has built a strong brand reputation over the past decade, particularly among environmentally conscious consumers and university-aged customers.

Recently, Aurora has faced significant financial pressure due to increased production costs, global supply chain disruptions, and declining quarterly profits. The Chief Executive Officer (CEO) has proposed outsourcing a large portion of manufacturing operations to a developing country where labour costs are 40% lower. This decision would increase short-term shareholder returns by approximately 18% and stabilise the company's financial position.

However, internal risk reports indicate that labour protections in the proposed region are weak. While no direct legal violations have been identified, there are credible concerns regarding excessive working hours, limited union protections, and inconsistent enforcement of workplace safety standards. Moving production would also require Aurora to reduce its current Australian workforce by 25%, affecting long-serving employees and local communities.

Stakeholders include:

- Shareholders seeking financial recovery and growth
- Australian employees facing potential job losses
- Overseas workers who may gain employment but under weaker protections

- Loyal customers who expect ethical sourcing
- Advocacy groups monitoring labour conditions

The CEO must decide whether to proceed with outsourcing under these conditions.

Assessment Requirements

Using **utilitarianism** and **deontological ethics** as analytical frameworks:

1. Evaluate the CEO's proposed outsourcing decision from both perspectives.
2. Compare how each framework interprets the ethical responsibilities of Aurora Fashions toward its different stakeholder groups.
3. Determine which ethical framework provides the stronger moral justification in this case.
4. Explicitly defend your chosen position with reasoned argumentation.
5. Critically explain why the alternative framework is less persuasive in this context.

Your response must go beyond describing each theory. You are required to make a clear ethical judgement and defend it using structured reasoning.

Contextual Constraint

In your evaluation, you must explicitly apply at least **one concept from this course's Ethical Decision-Making Model (Week 4 Lecture Framework)** to demonstrate how structured decision processes influence moral judgement. Clearly explain how this course-specific framework shapes or strengthens your final ethical conclusion.

Responses that merely summarise ethical theories without comparative judgement, structured justification, and integration of the course model will not meet the evaluative standard required for this assessment.

Word Limit: 1,500 words
Weighting: 30%
Learning Outcome Alignment: Evaluate competing ethical frameworks and defend a justified decision in complex business contexts.

Example 2:

Poor Prompt:

"Write an assignment that encourages critical thinking."

GenAI Output:

Business Ethics Assignment

Title: Ethical Decision-Making in Complex Business Contexts
Length: 1,500 words
Individual Assessment

Scenario: Data, Profit, and Responsibility

Insight Analytics is a rapidly growing technology company that develops AI-driven consumer profiling tools for major retailers. The company's software analyses customer purchasing patterns, social media behaviour, and location data to generate highly targeted marketing strategies.

Recently, Insight Analytics secured a lucrative contract with a national fast-food chain. The software will identify economically vulnerable communities and optimise advertising campaigns specifically designed to increase consumption in those areas. While the campaign is expected to significantly boost profits for both companies, public health advocates argue that the strategy disproportionately targets low-income groups already experiencing high rates of diet-related illnesses.

The CEO defends the decision by stating:

"We operate within the law. Consumers make their own choices. Our responsibility is to deliver value to shareholders."

However, several senior employees have raised ethical concerns. One executive has warned that proceeding with the strategy may contradict the company's stated values of "responsible innovation" and "positive social impact."

The Board has asked you to prepare an ethical analysis before making a final decision.

Good Prompt:

T – Task
Design a summative assessment task.
I – Instruction
The task must align with the defined HOT skill: evaluation of ethical decisions using competing theoretical frameworks.
C – Context

- Requires application of theory to a novel case
- Requires structured argumentation
- Requires explicit justification
- Includes marking criteria aligned to evaluation

Generate a detailed assignment brief (including instructions and marking rubric) that ensures students must evaluate and justify an ethical decision using at least two ethical frameworks.

GenAI Output:

Assessment Title: Evaluating Ethical Decisions in Complex Business Contexts
Weighting: 40%
Length: 1,800–2,000 words
Individual Submission

Assessment Purpose
This assessment evaluates your ability to **critically evaluate and justify an ethical decision** using competing theoretical frameworks. You must demonstrate structured argumentation, application of theory to a novel case, and explicit justification of a defensible ethical position.
This is not a descriptive task. It requires evaluative judgement.

Case Scenario: The Pharmaceutical Pricing Dilemma
MedicaLife is a multinational pharmaceutical company that has developed a breakthrough drug capable of significantly extending the lives of patients with a rare degenerative disease. The drug took 12 years and substantial investment to develop.
The company has set the price at $250,000 per patient per year. The justification is that the price reflects research and development costs, future innovation funding, and shareholder expectations.
However:

- Public healthcare systems cannot afford to subsidise the drug at scale.
- Many patients in lower-income countries will have no access.
- Advocacy groups argue that the company is prioritising profit over human life.
- Investors warn that lowering the price would reduce long-term research capacity and shareholder returns.

The CEO states:
“Our moral responsibility is to sustain innovation. Without strong profits today, there will be no life-saving drugs tomorrow.”
You have been appointed as an independent ethics advisor to evaluate whether the company’s pricing decision is ethically justified.

Task Instructions

Your report must include the following sections:

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1. Ethical Framework Application (Approx. 700 words)

Select **at least two ethical frameworks** (e.g., utilitarianism, deontology, virtue ethics, stakeholder theory, justice theory).

For each framework:

- Explain the key ethical principles relevant to decision-making.
- Apply the framework directly to the case.
- Identify what action the framework would recommend.
- Clarify how it evaluates the company's pricing decision.

This section must demonstrate applied reasoning, not textbook definition.

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2. Comparative Evaluation (Approx. 500 words)

Critically compare the conclusions reached under each framework.

You must:

- Identify points of agreement and disagreement.
- Evaluate the strengths and limitations of each framework in resolving this dilemma.
- Assess which framework provides the more compelling ethical guidance in this context and why.

Your discussion must weigh competing moral considerations rather than simply describing differences.

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3. Justified Ethical Recommendation (Approx. 500–600 words)

Develop and defend a clear ethical recommendation.

You must:

- Take a definitive position.
- Justify your decision using explicit reasoning grounded in theory.
- Address at least one plausible counterargument.
- Explain why your position is ethically stronger than at least one alternative course of action.

Your argument must demonstrate logical coherence, explicit justification, and evaluative judgement.

Submission Requirements

- Structured report format with headings.
- Academic referencing required.
- Clear argumentation and logical flow.
- Avoid purely personal opinion.
- Demonstrate evaluative reasoning throughout.

Marking Rubric (Aligned to Evaluation Level)

Criteria	High Distinction (85–100)	Distinction (75–84)	Credit (65–74)	Pass (50–64)	Fail (<50)
Application of Ethical Frameworks (30%)	Sophisticated and precise application of two or more frameworks to the novel case. Demonstrates deep understanding and accurate theoretical integration.	Strong application with clear linkage to case. Minor gaps in depth.	Adequate application but partially descriptive or uneven.	Basic application with limited depth or conceptual clarity.	Misapplication or purely descriptive explanation of theory.
Comparative Evaluation (25%)	Insightful critical comparison. Clearly weighs strengths, weaknesses, and tensions between frameworks. Demonstrates advanced evaluative reasoning.	Clear comparison with thoughtful analysis of differences and implications.	Some comparison but limited depth in evaluative judgement.	Minimal comparison; largely descriptive.	No meaningful comparison.
Justification of Ethical Position (25%)	Position is clearly articulated, logically defended, and grounded in theory. Counterarguments addressed convincingly.	Clear position with strong reasoning and some counterargument engagement.	Position stated but justification partially developed.	Weak or underdeveloped justification; limited engagement with alternatives.	No clear position or unsupported opinion.
Structured Argumentation & Coherence (10%)	Highly logical structure, strong flow, explicit reasoning at every stage.	Well-structured and coherent.	Generally organised but some logical gaps.	Basic structure; argument difficult to follow.	Disorganised; lacks coherent argument.
Use of Evidence & Academic Rigor (10%)	Excellent integration of academic sources; enhances argument depth.	Good integration of relevant sources.	Adequate referencing with limited integration.	Minimal academic support.	No or inappropriate referencing.

Example 3:

Poor Prompt:

"Is this task aligned with higher-order thinking?"

GenAI Output:

Yes — this task **is aligned with higher-order thinking**, because it requires students to go beyond mere comprehension or description and engage in **Bloom's Evaluate level** cognitive skills. Here's why:

1. **Judgment:** Students must assess the assignment brief and decide what works well and what doesn't. This is **critical evaluation**, not just reporting facts.
2. **Justification:** They must **defend their judgments** with reasoning, evidence, or comparison, which engages analytical and reflective skills.
3. **Application and Synthesis:** When recommending revisions, students **synthesize insights** and **apply evaluative criteria** to design improvements.
4. **Comparative Thinking:** The prompt asks for **comparison against standards or exemplars**, which strengthens evaluative reasoning.

Good Prompt:

T – Task
Evaluate the previously generated assignment.
I – Instruction
Determine whether the task genuinely elicits evaluation (Bloom's Evaluate) rather than analysis or description.
C – Context

- Does the task require judgement?
- Does it require justification?
- Could it be answered through summary alone?
- Is the rubric aligned to evaluative performance?

Critically analyse the assignment brief against these four alignment criteria and identify weaknesses. Suggest concrete revisions.

GenAI Output:

TIC Evaluation of Assignment Brief

T – Task

The task requires critically evaluating a previously generated assignment brief against four alignment criteria: judgment, justification, depth beyond summary, and rubric alignment. The evaluator is expected to identify weaknesses in the assignment and propose concrete improvements.

I – Instruction

The Instruction is to determine whether the assignment genuinely elicits **evaluation** (Bloom's *Evaluate*) rather than mere analysis or description. This ensures that students are asked to make reasoned judgments, justify them, and engage in higher-order cognitive processes rather than summarizing content or performing lower-level tasks.

C – Context Analysis

1. **Does the task require judgment?**
    - **Analysis:** The task does require the evaluator to make judgments about the quality, alignment, and cognitive demand of the assignment. However, the assignment brief itself may allow students to rely on procedural steps without requiring deep judgment if it is too formulaic.
    - **Weakness:** The wording of the assignment could unintentionally allow descriptive or analytical responses if evaluative prompts are not explicit.
    - **Suggested Revision:** Include explicit phrasing in the assignment such as *"Decide which aspects of the assignment demonstrate genuine evaluative thinking and which do not, and justify your reasoning."*
2. **Does it require justification?**
    - **Analysis:** The prompt asks for weaknesses and concrete revisions, implying justification. However, it does not explicitly require the reasoning behind each judgment.
    - **Weakness:** Students may list weaknesses without providing a rationale.
    - **Suggested Revision:** Add a clause such as *"For each weakness you identify, provide a clear justification based on the alignment criteria and Bloom's taxonomy."*

3. **Could it be answered through summary alone?**
    - **Analysis:** There is a risk that students might simply restate the assignment instructions or rubric content rather than engaging in evaluative reasoning.
    - **Weakness:** Lack of explicit instruction for critical comparison or evaluation can lead to surface-level responses.
    - **Suggested Revision:** Include an evaluative instruction like *"Do not simply summarise; instead, compare the assignment's intended outcomes with the cognitive skills it elicits and evaluate its effectiveness."*
4. **Is the rubric aligned to evaluative performance?**
    - **Analysis:** The brief mentions the rubric but does not specify that the rubric should reflect evaluative performance explicitly.
    - **Weakness:** If the rubric focuses on completion, formatting, or descriptive analysis, it undermines the intent to elicit evaluation.
    - **Suggested Revision:** Revise the rubric to include explicit evaluative criteria, such as *"Demonstrates clear judgment with supporting justification"* and *"Effectively differentiates between analysis and evaluation."*

Outcome / Recommendations

- Strengthen the assignment brief by explicitly instructing students to **justify each evaluation**.
- Emphasize that responses should **go beyond summary** to include reasoning, judgment, and alignment with Bloom's *Evaluate*.
- Adjust the rubric to **measure evaluative performance**, not only completion or analytical accuracy.
- Include examples or prompts that guide students to **critically distinguish evaluation from analysis**, ensuring higher-order cognitive engagement.

Example 4:

Poor Prompt:

"Improve this assignment."

GenAI Output:

Revised Assignment Brief: Critical Evaluation of an Assignment

Task

Critically evaluate the previously generated assignment. Your goal is to assess whether the assignment effectively promotes higher-order thinking and evaluative skills. Identify its strengths, weaknesses, and opportunities for improvement.

Instructions

1. **Analyze the Assignment**
    - Examine the assignment in terms of its clarity, purpose, and cognitive demands.
    - Determine whether it truly requires students to make judgments and justify their reasoning, rather than just describe or summarize.
2. **Provide Justification**
    - For every strength or weakness you identify, explain your reasoning.
    - Reference educational principles, such as Bloom's taxonomy or effective assessment practices, to support your evaluation.
3. **Propose Concrete Improvements**
    - Suggest specific, actionable changes to the assignment brief or rubric to better foster critical thinking and evaluative skills.
    - Recommendations should clearly show how they would make the task more challenging, meaningful, and aligned with higher-order objectives.
4. **Depth of Evaluation**
    - Go beyond surface-level observations.
    - Consider how well the assignment encourages independent thinking, application of knowledge, and reasoned judgment.

Good Prompt:

T – Task
Revise the assignment brief.

I – Instruction

Strengthen alignment with Bloom's Evaluate level.

C – Context

- Include directive verbs (evaluate, justify, defend)
- Embed comparative requirement
- Tighten rubric descriptors to reflect judgement quality
- Reduce risk of descriptive responses

"Rewrite the assignment brief to eliminate descriptive pathways and enforce evaluative reasoning."

GenAI Output:

Assignment Brief: Critical Evaluation of an Assignment

Task

Revise the provided assignment brief. Your task is to **critically evaluate** its structure, clarity, and cognitive demands, then propose concrete improvements.

Instruction

Ensure the assignment aligns with **Bloom's Evaluate level**, requiring reasoned judgment, justification, and defensible conclusions rather than descriptive summaries.

Instructions

1. **Evaluate and Compare**
    - Critically assess the assignment brief against best-practice standards or exemplar assignments.
    - Compare features such as clarity, task complexity, and alignment with intended learning outcomes.
2. **Justify Your Judgments**
    - Provide clear reasoning for each evaluation.
    - Use directive verbs like **evaluate**, **justify**, and **defend**.
3. **Identify Weaknesses**
    - Highlight areas prone to descriptive or superficial responses.
    - Explain why these weaken alignment with evaluative learning objectives.
4. **Recommend Improvements**
    - Suggest actionable revisions that strengthen evaluative reasoning.
    - Demonstrate how each recommendation enforces higher-order thinking.

Rubric (Focus on Evaluative Performance)

Criteria	Excellent	Satisfactory	Needs Improvement
Judgment Quality	Evaluates multiple aspects with nuanced, evidence-based reasoning	Evaluates some aspects with partial justification	Evaluation is minimal or descriptive
Justification	Provides clear, logical defense for all judgments	Reasoning provided but incomplete	Little or no justification
Comparative Insight	Insightful comparison to standards or examples supports evaluation	Some comparison but weak connection	No meaningful comparison
Actionable Recommendations	Provides practical improvements enforcing evaluative thinking	Suggestions general or partially actionable	Recommendations vague or missing

[1]