DESIGNING HOTS TEST ITEMS

Advanced Teaching Methodology Course (ATMC)
Centre for Professional Development (CPD)

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PART 1: Foundations of HOT Assessment Design

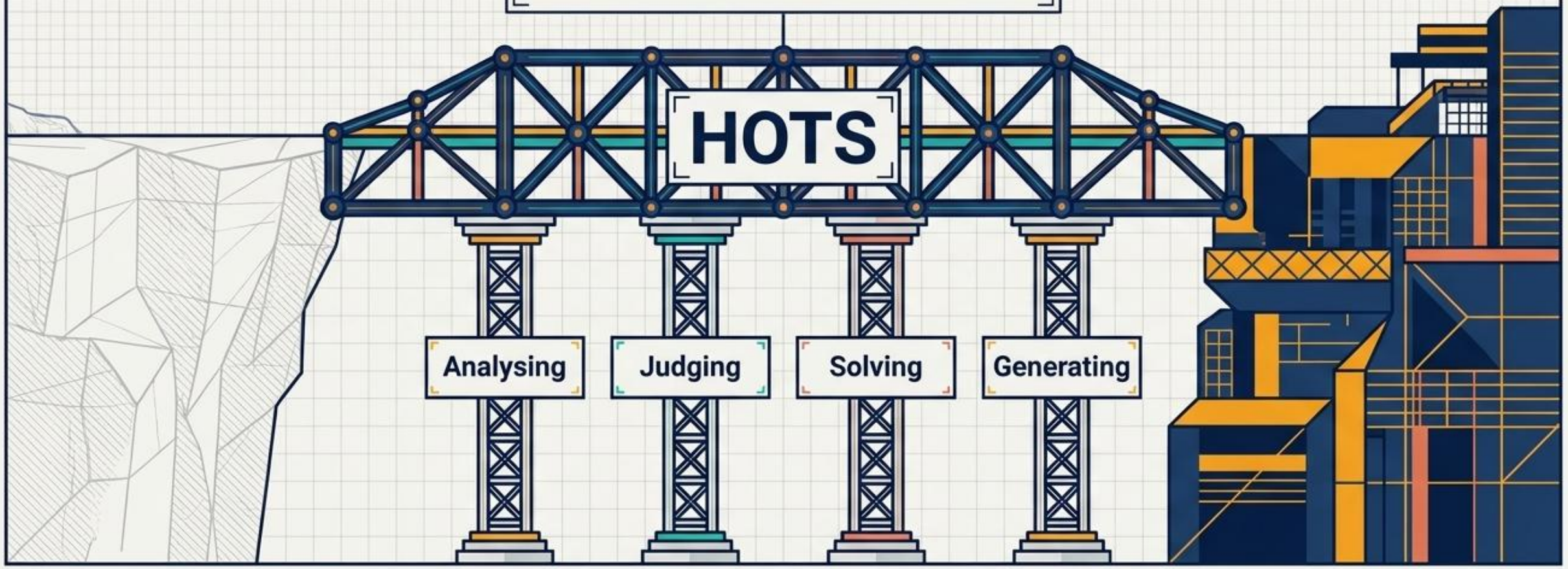
LEARNING OUTCOMES ROADMAP

WHAT IS HOTS?

Rote Memorisation & Recall

HOTS require learners to apply knowledge in unfamiliar contexts, demonstrating deeper understanding and intellectual flexibility.

Real-World Complexity & Unfamiliar Contexts



Equipping Graduates for Modern Complexities

Critical Thinking

Move beyond rote learning and engage in meaningful intellectual work.

Evaluation

Make complex decisions and evaluate competing information.

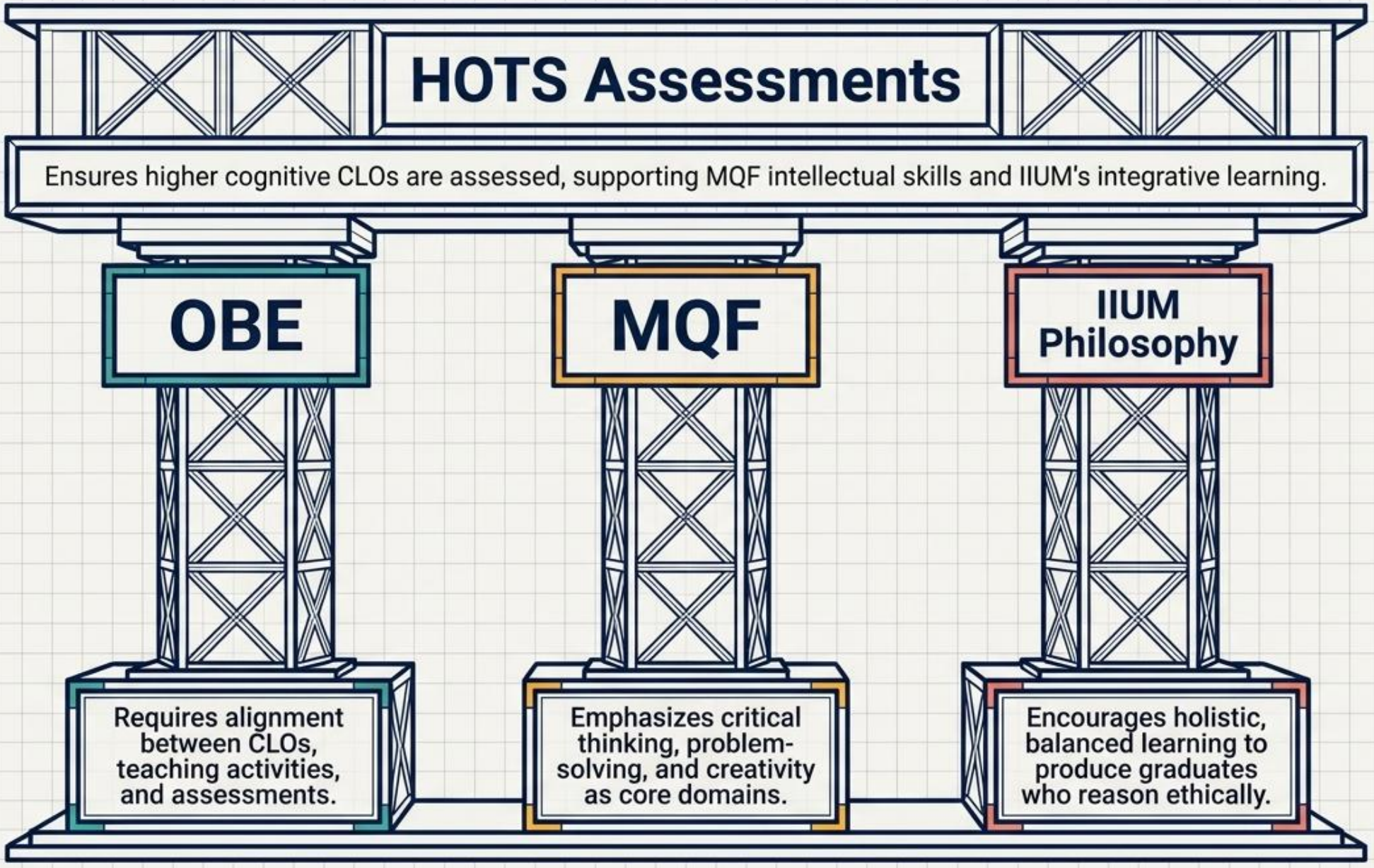
Innovation

Generate novel solutions and demonstrate creativity.

Adaptability

Prepare for lifelong learning and complex, real-world challenges.

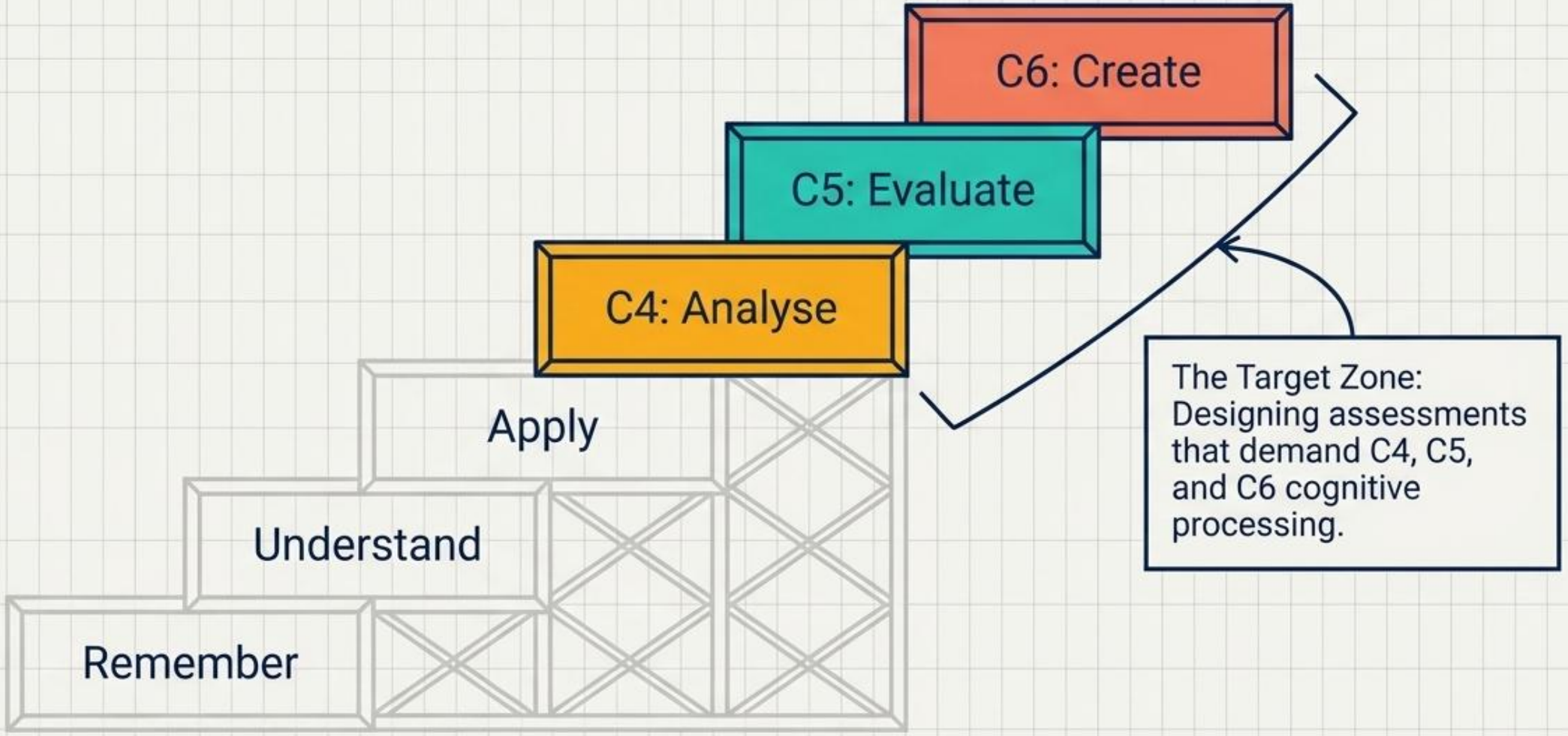
The Structural Keystone of Our Curriculum



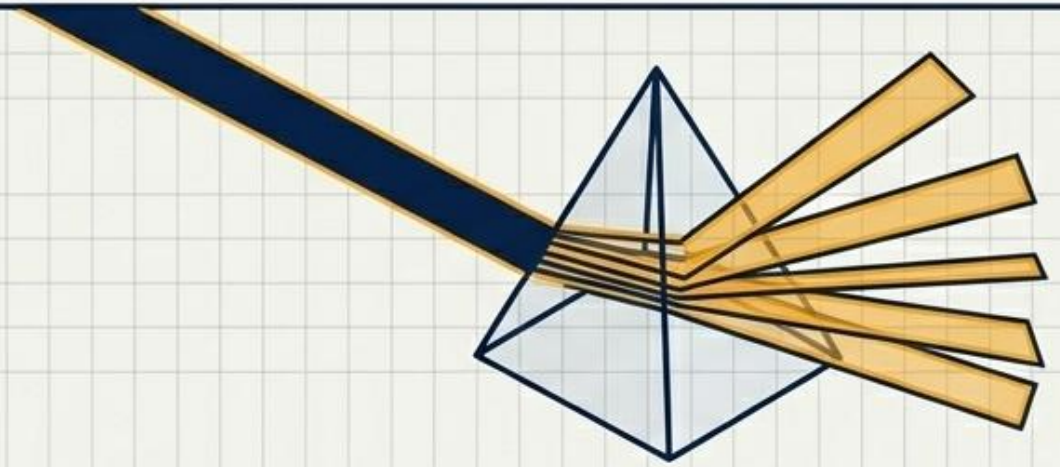
The Assessment Divide: LOTS vs. HOTS

	LOTS (Lower-Order Thinking Skills)	HOTS (Higher-Order Thinking Skills)
The Action	Memorisation and predictable recall.	Analysing, making judgements, solving problems, generating ideas.
The Context	Highly familiar, previously rehearsed scenarios.	Unfamiliar contexts requiring intellectual flexibility.
The Outcome	Regurgitation of surface-level facts.	Demonstration of deeper, integrative understanding.

Scaling the Cognitive Summit



C4: Analyse (Deconstruction)



Core Definition

Break information into components to understand relationships, underlying structures, and patterns.

What Students Do

- Examine causes/effects → Identify assumptions/ biases
- Compare perspectives → Interpret data

Typical Task Verbs

- Analyse
- Differentiate
- Examine
- Investigate
- Compare
- Organise

C5: Evaluate (Judgement)

Core Definition

Make judgements based on criteria, evidence, or standards. Assess credibility, relevance, or effectiveness.

What Students Do

Critique arguments/ solutions → Assess credibility → Justify decisions with evidence → Prioritise or recommend

Typical Task Verbs

- Evaluate
- Justify
- Critique
- Assess
- Defend
- Recommend

C6: Create (Genesis)

Core Definition

Generate new ideas, products, or solutions by synthesising information. Combine elements in novel ways to produce original outcomes.

What Students Do

- Design innovative solutions
- Develop new frameworks
- Produce original work
- Plan/construct something new

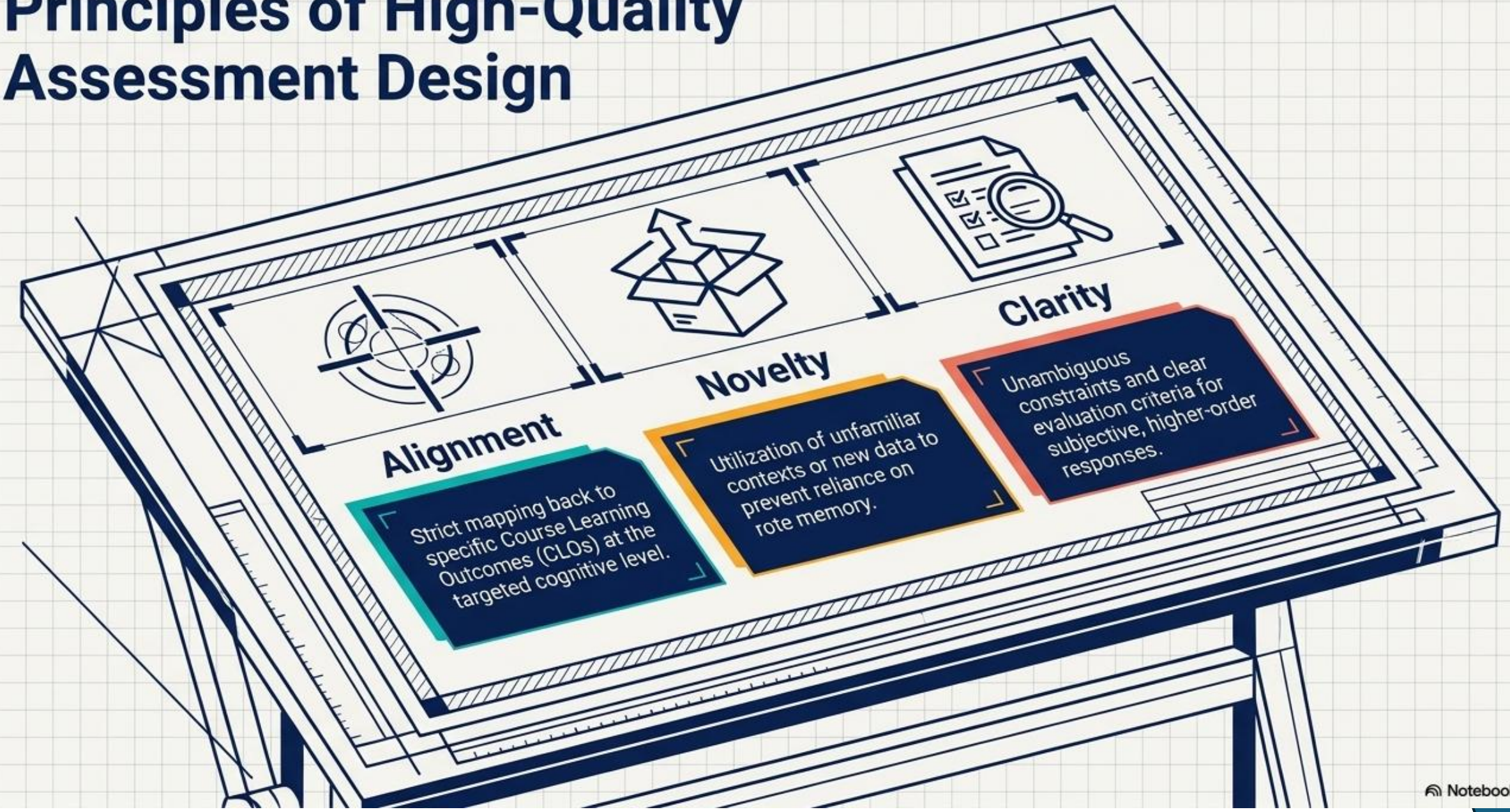
Typical Task Verbs

- Create
- Design
- Develop
- Propose
- Construct
- Formulate

The HOTS Synthesis Matrix

	C4: Analyse	C5: Evaluate	C6: Create
The Cognitive Action	Break apart and find patterns.	Judge against established criteria.	Combine to form a novel whole.
Evidence of Mastery	Finding hidden causes and structural connections.	Providing reasoned justifications and critiques.	Proposing functional, original models or plans.

Principles of High-Quality Assessment Design



Structural Pitfalls in Item Writing

	The Pitfall ✗	The Blueprint ✓
The Disguised LOTS	Using a C4/C5 verb ('Evaluate...') but only requiring students to regurgitate a memorised list of pros and cons.	Provide a novel, unseen case study and ask students to evaluate the optimal path forward using class frameworks.
Vague Parameters	'Analyse the impacts of X.' (Too broad, no clear criteria for success).	'Analyse the impacts of X on Y, identifying at least two systemic biases in the provided data.'

Common Pitfalls in HOT Item Writing

Over-Complex Wording

- Using unnecessarily long or convoluted sentences.
- Introducing jargon or unfamiliar terminology that distracts from the cognitive task.

Ambiguous Stems

- Stems that are vague, unclear, or open to multiple interpretations.
- Students waste time guessing what the question is asking rather than demonstrating thinking.

Misaligned Verbs

- Using verbs that suggest higher-order thinking but pairing them with tasks that only require recall.
- Example: “Analyse the definition of…” (still C1–C2).

Marks Not Matching Cognitive Demand

- Awarding too few marks for tasks requiring deep reasoning or multi-step thinking.
- Awarding too many marks for simple recall tasks.
- This misalignment reduces validity and undermines assessment fairness.

Principles of Good Assessment Design

Validity	• The item measures what it is intended to measure. • HOTS items must genuinely assess higher-order thinking, not language proficiency or irrelevant skills.
Reliability	• The item produces consistent results across markers, contexts, and student groups. • Clear rubrics and well-structured questions enhance reliability.
Fairness	• All students should have an equal opportunity to demonstrate their ability. • Avoid cultural bias, unnecessary complexity, or unfamiliar contexts.
Cognitive Alignment	• The cognitive level of the question must match the CLO and intended learning outcome. • Verbs, task demands, and mark allocation must reflect the targeted level (C4–C6).
Avoiding Construct-Irrelevant Difficulty	• Difficulty should arise from the cognitive challenge, not from confusing wording, excessive reading load, or irrelevant details. • Keep language clear and purposeful.

Exercise 1- LMS

Individual Activity

PART 2: Designing HOT Multiple-Choice Items (MCQs)

Learning Outcomes

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

- **1. Construct MCQs that assess C4–C6 cognitive levels**
  - Develop scenario-based, data-driven, and judgement-based MCQs.
  - Ensure the cognitive demand aligns with the intended learning outcome.
  - Write items that require analysis, evaluation, or creative reasoning within the MCQ format.
- **2. Apply best practices for stems, options, distractors, and marking schemes**
  - Write clear, focused stems that avoid ambiguity.
  - Construct plausible distractors that reflect common misconceptions.
  - Avoid cues, patterns, and grammatical inconsistencies.
  - Allocate marks appropriately based on cognitive load.

A. Anatomy of a High-Quality MCQ

1. Stems

- Must be clear, concise, and free of unnecessary wording.
- Should present a complete problem or scenario.
- Should focus on what students *must do*, not what they must *guess*.
- Avoid negative phrasing unless absolutely necessary.

2. Keys (Correct Answers)

- Must be defensible, evidence-based, and aligned with the CLO.
- Should not be obviously longer, more detailed, or more precise than distractors.
- Avoid patterns (e.g., always “C”).

3. Distractors

- Must be plausible and reflect common errors or misconceptions.
- Should be grammatically consistent with the stem.
- Avoid humour, trickery, or distractors that are obviously wrong.
- Avoid overlapping distractors that confuse rather than challenge.

4. Avoiding Cues and Giveaways

- **Absolutes:** “always”, “never”, “all”, “none” — usually incorrect.
- **Grammatical cues:** Only one option fits grammatically.
- **Logical cues:** One option is more detailed or qualified.
- **Pattern cues:** Repeated correct answers in the same position.

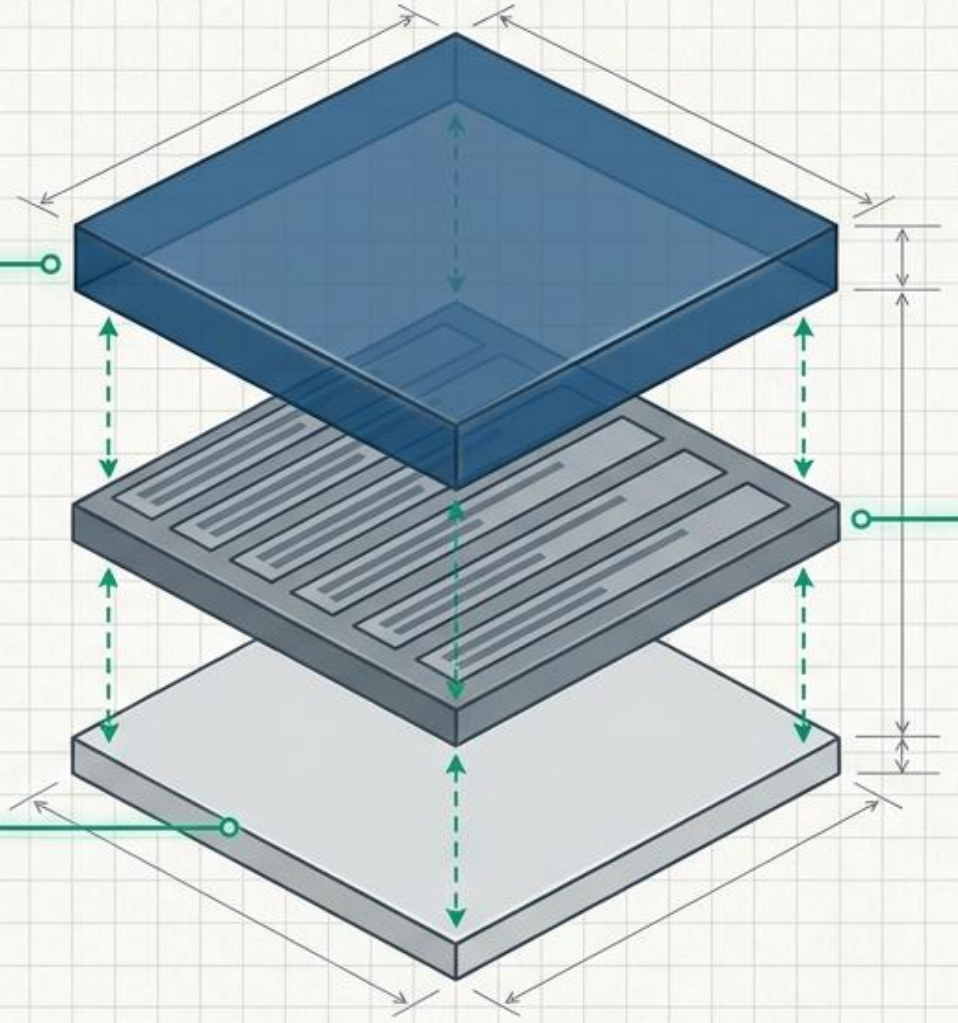
The Art of Assessment Design

21 Fatal Flaws in Multiple Choice Questions—and How to Fix Them.

A well-engineered assessment isolates the learner's knowledge, not their test-taking skills.

The Stem

The premise or the core question. Must be focused, clear, and pose a definite problem.



The Alternatives (Distracters)

The available choices. Must be plausible, structurally sound, and cognitively rigorous.

The Language

The foundational syntax and tone. Must be objective, audience-appropriate, and distraction-free.

The stem must pose a definite problem without burying the reader in irrelevant details.

1. Excessive Verbiage & Irrelevance

George Washington, ~~who was born in Virginia and famously had wooden teeth,~~ was primarily known for which of the following roles?

Fix: What was George Washington's primary role?

2. Unclear / Lacking Definite Focus

Photosynthesis...

Fix: What is the primary byproduct of photosynthesis?

3. Failing to Include a Question

The capital of France.

Fix: What is the capital of France?

4. Essay-Type Action Verbs

Evaluate the causes of the Civil War:

Fix: Which of the following was a primary economic cause of the Civil War?

Mechanical errors in the stem create artificial difficulty or give away the answer entirely.

5. Unintentional Cues

What is the primary function of the *respiratory* system?
A) to digest food
B) to pump blood
C) to facilitate respiration
D) to control movement

Word association clue ('respiratory' links to 'respiration')

Fix: What is the primary function of the lungs?

6. Missing Highlight on Significant Words

Which of these is not a mammal?

Easily overlooked

Fix: Which of these is NOT a mammal?

7. Double Negatives

Cognitive dissonance!

Which of the following is not uncommon?

Fix: Which of the following is common?

8. Awkward Blank Placement

Interrupts reading flow

[_____] is the chemical symbol for Gold.

Fix: The chemical symbol for Gold is ____.

9. Distracters must represent plausible misconceptions, not obvious throwaways or structural tells.

10. Unequal in Length

What is the color of grass?

A) Red.
B) Blue.
C) The color green, which is formed by mixing yellow and blue.

Fix:
A) Red
B) Blue
C) Green

11. Vague or Irrelevant

Which force pulls objects toward Earth?

A) Gravity
B) Magnetism
C) Good vibes

Fix:
A) Gravity
B) Magnetism
C) Friction

Eliminate the “echo chamber” by consolidating repetitive text into the stem.

12. Repeating Common Words Across Alternatives A) It is a planet. B) It is a star. C) It is a comet.	**Clean Fix** What celestial body is this? A) Planet B) Star C) Comet.
13. Repeating Words from the Stem What is a solar eclipse? A) A solar event...	**Clean Fix** Use synonyms or focus on the mechanism, avoiding the vocabulary giveaway.
14. Differing Only by One or Two Words A) The cat ran fast. B) The cat ran slowly. Tests reading speed, not comprehension	**Clean Fix** Ensure distinct, conceptually different choices rather than minor phrasing tweaks.

Structural mismatches allow test-takers to guess correctly with zero actual subject knowledge.

15. Grammatical Mismatch

The patient was treated with:

✗ A) Quickly
B) Surgery
✗ C) Better.

Sentence structure broken

Ensure all options complete the sentence logically.

16. Lacking Content Homogeneity

Example: Thrs content content

A) Paris - Place
B) 1942 - Time
C) Albert Einstein - Person

Ensure all distracters belong to the exact same category.

17. Language Inconsistency

Example:

A) Utilize a comprehensive data analysis framework.
B) Check the numbers.
C) Deploy a statistical modeling approach.

Keep **phrasing style** and **formality** consistent across all options.

18. "None / All of the Above"

Example:

A)
B)
C)
D)

Allows guessing with only partial knowledge!

Write a **4th distinct, plausible**, and **rigorous distracter** instead.

Assessment language should be objective, clear, and perfectly calibrated to the target audience.

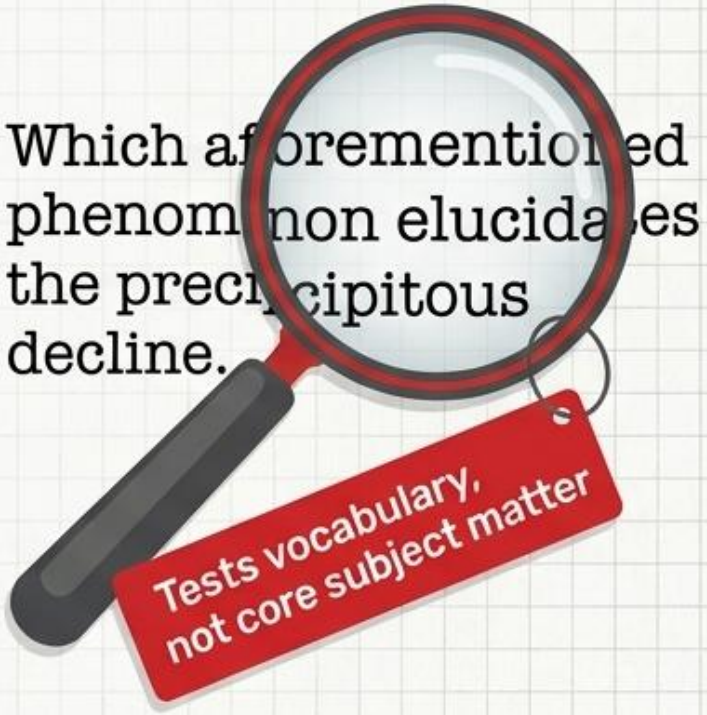
19. Asking for Opinions vs. Objective Facts

Fix: Who was the first President?

20. Colloquial Language

Fix: Why did the economy experience a recession?

21. Bookish or Complex Language



Fix: What explains the rapid drop...

Audit your assessments by measuring them against cognitive load, unfair hints, and structural integrity.

Did I give away the answer?	Did I create unnecessary cognitive load?	Is the structure sound?
☐ Unintentional cues in the stem	☐ Excessive verbiage / irrelevant info	☐ Distracters are actually plausible
☐ Options do not fit the stem grammatically	☐ Double negatives	☐ Choices share content homogeneity
☐ Repeating words from the stem in the answer	☐ Bookish/complex or colloquial language	☐ The stem has a definite focus and asks a clear question
☐ Alternatives are noticeably unequal in length	☐ Blank-filling space at the beginning or middle	☐ Questions rely on objective facts, not opinions
	☐ Alternatives differ by only one or two words	☐ Replaced “All/None of the above” with rigorous options

Applying the editorial rules transforms a confusing riddle into a rigorous, valid assessment.

The Nightmare MCQ

Double Negative

In regards to the not uncommon biological processes of plants, which of the following is not true about photosynthesis, a process discovered years ago?

A) It makes food.

B) Making water.

C) It is a process that utilizes sunlight to synthesize foods from carbon dioxide and water.

Unequal Length!

D) All of the above.

All of the above

The Perfect Assessment

Which of the following is a primary outcome of photosynthesis?

A) The generation of water.

B) The synthesis of glucose.

C) The release of carbon dioxide.

D) The absorption of oxygen.

B. Designing HOT MCQs (C4–C6)

C4: Scenario-Based Analysis

- Present a case, graph, or situation requiring interpretation.
- Ask students to identify patterns, relationships, or causes.
- Example tasks:
  - Analyse the data trend.
  - Identify the underlying assumption.
  - Determine the most likely explanation.

C4 Example

A secondary school introduced a new teaching strategy where students engage in group discussions before answering exam questions. After one semester, the teacher observed that students' test scores improved, but some students reported feeling less confident when working individually.

What is the MOST likely explanation for this outcome?

a) **The group discussions reduced students' overall motivation to learn independently**

b) **Students became overly reliant on peer support, affecting their individual confidence**

c) **The new strategy was ineffective in improving students' understanding of the content**

d) **Students preferred traditional teaching methods over collaborative learning**

- **Correct Answer: B**

C5: Judgement-Based Evaluation

- Require students to make a judgement using criteria or evidence.
- Options should represent different lines of reasoning.
- Example tasks:
  - Evaluate the most effective solution.
  - Judge which argument is strongest.
  - Identify the most credible source.

C5 Example

A school is trying to improve students' critical thinking skills. Four strategies are proposed:

- Strategy A: Increase the number of multiple-choice tests
- Strategy B: Introduce project-based learning with real-world problems
- Strategy C: Provide more lecture-based content delivery
- Strategy D: Reduce assessment frequency to lower student stress

Based on the goal of enhancing critical thinking, which strategy is the most effective?

A. A. Strategy A, because frequent testing improves content recall
B. Strategy B, because it engages students in analysing and solving authentic problems
C. Strategy C, because structured lectures ensure complete content coverage
D. Strategy D, because reducing stress allows students to focus better

C6: Innovation-Based Creation Tasks (Adapted for MCQs)

- Although MCQs cannot fully assess creation, they can assess:
  - Selecting the best design option
  - Choosing the most appropriate strategy
  - Identifying the most innovative or feasible solution
- Example tasks:
  - Choose the best design for a given constraint.
  - Select the most appropriate plan to achieve an outcome.

C6 Example

Question: A city needs to reduce downtown traffic without expanding existing roadways or altering historic buildings. Which strategy represents the most appropriate plan to achieve this outcome?

A) Building an elevated highway directly above the existing downtown street grid.
B) Implementing a congestion pricing system while heavily subsidizing local public transit.
C) Widening the main avenues by significantly reducing the pedestrian sidewalk space.
D) Banning all commercial and personal vehicles from the entire downtown district.

Correct Answer: B

C. Using Stimulus Materials

1. Types of Stimuli

- Graphs and charts
- Data tables
- Short case studies
- Diagrams or visuals
- Extracts from articles or reports

2. Why Use Stimuli?

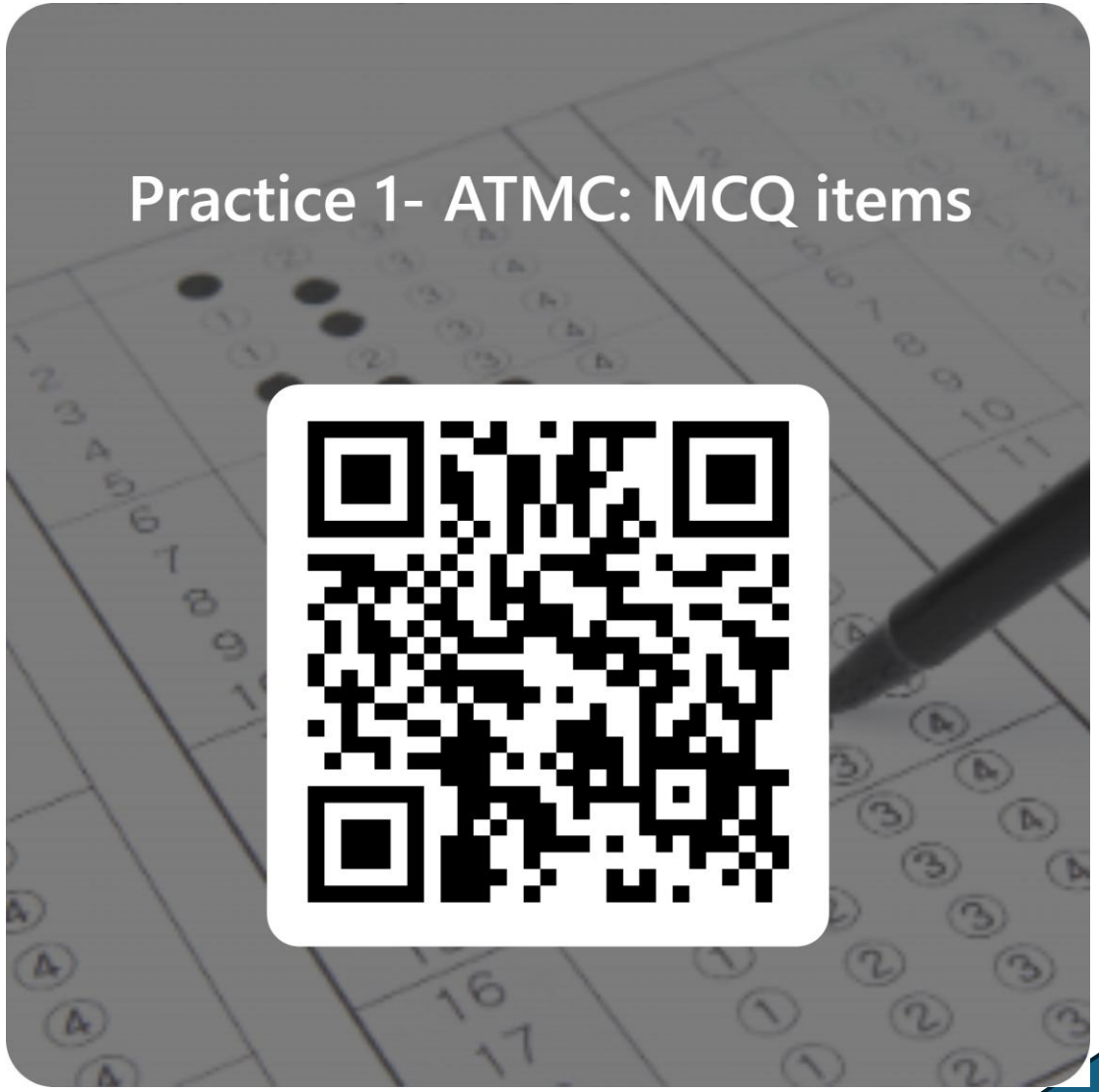
- Stimuli shift the cognitive demand from recall to interpretation.
- They allow assessment of real-world reasoning.
- They reduce the risk of teaching-to-the-test.

3. Ensuring Cognitive Load Is Purposeful

- Stimulus should support thinking, not overwhelm students.
- Avoid excessive text or irrelevant details.
- Ensure the difficulty arises from the *thinking task*, not the reading burden.

Practice Session

Practice 1- ATMC: MCQ items – Fill out form



No	Item	Cognitive Complexity	Justification
1	In which of these time periods was World War II fought? (A) 1914–1917 (B) 1929–1934 (C) 1939–1945		
2	Which of the following is a symptom of osteoporosis? (A) Uncontrolled hair loss (B) Frequent joint pain (C) Low bone density		
3	A fertile area in the desert in which the water table reaches the ground surface is called a/an (A) oasis (B) polder (C) mirage		

No	Item	Cognitive Complexity	Justification
4	The statement that "test reliability is a necessary but not sufficient condition of test validity" means that (A) a test must be completely valid and reliable. (B) a reliable test may have a certain degree of validity. (C) a valid test should also have some degree of reliability.		
5	Which of the following is an interpretation of a criterion referenced test? (A) Ahmad obtained the highest score in science. (B) Samy set up his laboratory equipment in 5 minutes. (C) Fu completed his fitness exercise faster than his classmates.		
6	When the number of alternatives for each multiple-choice item in a test is changed from three to four, the reliability of the test will most likely (A) decrease. (B) increase. (C) be unchanged.		

No	Item	Cognitive Complexity	Justification
7	Which one of the following learning outcomes is properly stated in terms of student performance? (A) Develop an understanding of assessment principles. (B) Learn how to write good multiple-choice questions. **(C) Explain the purpose of test specification table.**		
8	The type of learning outcomes that is MOST difficult to assess objectively is an (A) application **(B) appreciation** (C) interpretation		
9	Which of the following learning outcome statements fulfils the MQA requirements? **(A) Evaluate critically the usefulness of multiple-choice questions in assessing higher-order thinking skills** (B) Understand the relationship between the difficulty and discrimination indexes in educational assessment (C) Demonstrate awareness of the importance of educational assessment by the end of the semester		

No	Item	Cognitive Complexity	Justification
10	A preschool teacher is concerned about May because of the following observations about her behaviour in class: • Withdraws from peers on the playground and during group work. • Confuses syllables in words, for example, says *mazagine* for *magazine*. • Mixes up b with d, p with q, etc. when writing or recognizing letters The teacher has arranged a meeting with May's mother to discuss these concerns. **Which of the following statements is BEST for the teacher to say to May's mother?** **(A) May needs extra practice reading and writing problematic letters and words at home.** **(B) Please discuss school work with May so that she will work harder in her class work.** **(C) I would like to refer May to a specialist for diagnosis as she might have a medical problem.**		

Exercise 2 - LMS

Individual Activity

PART 3: Designing HOT Structured/Subjective Items

Learning Outcomes

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

1. Write structured and open-ended questions that elicit higher-order thinking (C4–C6)

- Construct prompts that require analysis, evaluation, and creative reasoning.
- Use real-world scenarios, case studies, and data sets to stimulate deeper thinking.
- Ensure questions are aligned with CLOs and intended cognitive levels.

2. Develop marking rubrics aligned with cognitive levels

- Create analytic and holistic rubrics that reflect C4, C5, and C6 expectations.
- Ensure criteria are clear, observable, and measurable.
- Allocate marks proportionately to cognitive demand and task complexity.

A. Types of HOT Structured / Subjective Items

1. Short-Answer Analytical Questions (C4)

- Require students to break down information, identify relationships, or interpret data.
- Typically involve:
  - Identifying causes
  - Comparing perspectives
  - Analysing patterns
- Example: ***"Analyse the factors contributing to the decline shown in the graph."***

✍️ Essay Item (C4: Analysis)

Question:

A secondary school has observed a decline in students' academic performance over the past two semesters. Data shows increased absenteeism, reduced classroom participation, and higher levels of reported stress among students.

Analyse the factors contributing to this decline. In your answer, identify at least TWO possible causes and explain how they are related to the decrease in performance.

Criteria	Excellent (4)	Good (3)	Satisfactory (2)	Weak (1)
Identification of Factors	Clearly identifies two or more relevant factors	Identifies two relevant factors	Identifies one relevant factor	Factors unclear or irrelevant
Analysis of Relationships	Thoroughly explains how factors are connected to performance decline	Explains relationships with some clarity	Limited explanation of relationships	No clear explanation
Use of Evidence/Examples	Uses appropriate examples or reasoning to support analysis	Some examples or reasoning provided	Minimal supporting evidence	No supporting evidence
Clarity of Response	Well-organised and clearly written	Generally clear with minor issues	Some lack of clarity or organisation	Unclear and poorly organised

A. Types of HOT Structured / Subjective Items

2. Case-Based Problem-Solving Questions (C4–C5)

- Present a realistic scenario requiring interpretation and judgement.
- Students must apply knowledge to unfamiliar contexts.
- Example: *“Given the case above, identify the most critical issue and justify your reasoning.”*

✍️ Essay Item (C4–C5: Analysis & Evaluation)

Question:

A secondary school recently introduced online learning for several subjects. After one term, teachers reported that while some students performed well, many showed low engagement, missed deadlines, and relied heavily on copying answers from online sources.

Based on the case above, identify the most critical issue affecting student learning and justify your reasoning. In your answer, analyse the situation and explain why this issue is more significant than other possible concerns.

Criteria	Excellent (4)	Good (3)	Satisfactory (2)	Weak (1)
Identification of Issue	Clearly identifies the most critical issue with strong relevance	Identifies a relevant issue	Identifies an issue with limited relevance	Issue unclear or inappropriate
Analysis of Case	Thorough analysis of key aspects of the situation	Good analysis with some detail	Basic or partial analysis	Little or no analysis
Justification of Judgement	Strong, well-supported justification with clear reasoning	Clear justification with some support	Limited justification	No clear justification
Clarity of Response	Well-organised and clearly expressed	Generally clear with minor issues	Some lack of clarity	Unclear and poorly organised

3. Evaluation and Justification Tasks (C5)

- Require students to make judgements based on criteria or evidence.
- Students must justify their decisions clearly.
- Example: *“Evaluate the effectiveness of the proposed strategy using relevant evidence.”*

✍️ Essay Item (C5: Evaluation & Justification)

Question:

A lecturer implemented a new assessment strategy that replaces final exams with continuous assessments, including group projects, reflective journals, and presentations. Some students reported increased engagement, while others felt the workload was overwhelming and assessment criteria were unclear.

Evaluate the effectiveness of this assessment strategy. In your answer, use relevant criteria (e.g., fairness, validity, student engagement, workload) and justify your judgement with appropriate reasoning.

Criteria	Excellent (4)	Good (3)	Satisfactory (2)	Weak (1)
Use of Criteria	Clearly applies multiple relevant criteria (e.g., validity, fairness)	Applies relevant criteria with some clarity	Limited or unclear criteria used	No clear criteria applied
Evaluation of Strategy	Thorough and balanced evaluation of strengths and weaknesses	Good evaluation with some balance	Basic or one-sided evaluation	Little or no evaluation
Justification of Judgement	Strong, well-supported justification using clear reasoning or examples	Clear justification with some support	Limited justification	No clear justification
Clarity of Response	Well-organised and clearly written	Generally clear with minor issues	Some lack of clarity	Unclear and poorly organised

4. Creative Solution Design Prompts (C6)

- Require synthesis of ideas to propose new solutions, models, or strategies.
- Encourage innovation within discipline-appropriate boundaries.
- Example: *“Design an intervention plan to address the problem described, ensuring feasibility and sustainability.”*

✍️ Essay Item (C6: Creation / Design Task)

Question:

A school is facing challenges with low student engagement and increasing reliance on AI-generated answers in assessments.

Design an assessment strategy that promotes authentic learning, reduces overreliance on AI tools, and encourages meaningful application of knowledge. Explain your proposed strategy and justify how it addresses the given challenges.

Criteria	Excellent (4)	Good (3)	Satisfactory (2)	Weak (1)
Design of Strategy	Creative, well-developed, and feasible strategy	Clear and appropriate strategy	Basic or partially developed strategy	Unclear or impractical strategy
Alignment with Goals	Fully addresses engagement, AI use, and authentic learning	Addresses most key goals	Addresses some goals	Does not address key goals
Justification of Design	Strong, logical justification with clear reasoning	Reasonable justification	Limited justification	No clear justification
Clarity of Response	Well-organised and clearly expressed	Generally clear with minor issues	Some lack of clarity	Unclear and poorly organised

Exercise 3 - LMS

Individual Activity

B. Rubric Development for HOT Items

Selecting the Right Framework for HOT Items

Analytic Rubrics		Holistic Rubrics
Breaks performance into distinct criteria. Requires detailed descriptors per level.	Mechanism	Provides a singular, overall judgement based on the complete piece of work.
Tasks requiring granular, specific feedback across different facets of performance.	Best Application	Complex, integrative tasks where assessment criteria heavily overlap.
Ensures **high reliability** across multiple markers.	Advantage	**Faster** to mark once calibrated.
Highly detailed; demands intensive upfront development time.	Constraint	Demands **highly experienced markers** to ensure consistency.

Sample Analytical Rubric

Task: Reflective Essay / Project / Presentation

Purpose: To assess specific components of student work separately

Criteria	4 – Excellent	3 – Good	2 – Satisfactory	1 – Weak
Content & Understanding	Deep and comprehensive understanding. Ideas are insightful, accurate, and highly relevant.	Clear understanding with relevant ideas. Some depth evident.	Basic understanding with limited depth. Some ideas unclear.	Very limited or inaccurate understanding. Ideas irrelevant or incorrect.
Critical Thinking (HOTS)	Excellent analysis, evaluation, and synthesis. Arguments are original and well-justified.	Good analysis and reasoning. Some evaluation present.	Limited analysis. Mostly descriptive with minimal evaluation.	No critical thinking. Purely descriptive or copied ideas.
Organisation & Structure	Exceptionally well-organised. Clear and logical flow throughout.	Well-organised with minor lapses.	Some organisation but lacks clear flow.	Poor organisation. No clear structure.
Language & Clarity	Clear, fluent, precise language. Virtually no errors.	Generally clear with minor errors.	Some errors affecting clarity.	Frequent errors that hinder understanding.
Creativity / Originality	Highly original and engaging. Unique perspective.	Some originality shown.	Limited originality. Predictable ideas.	No originality. Very basic or copied ideas.

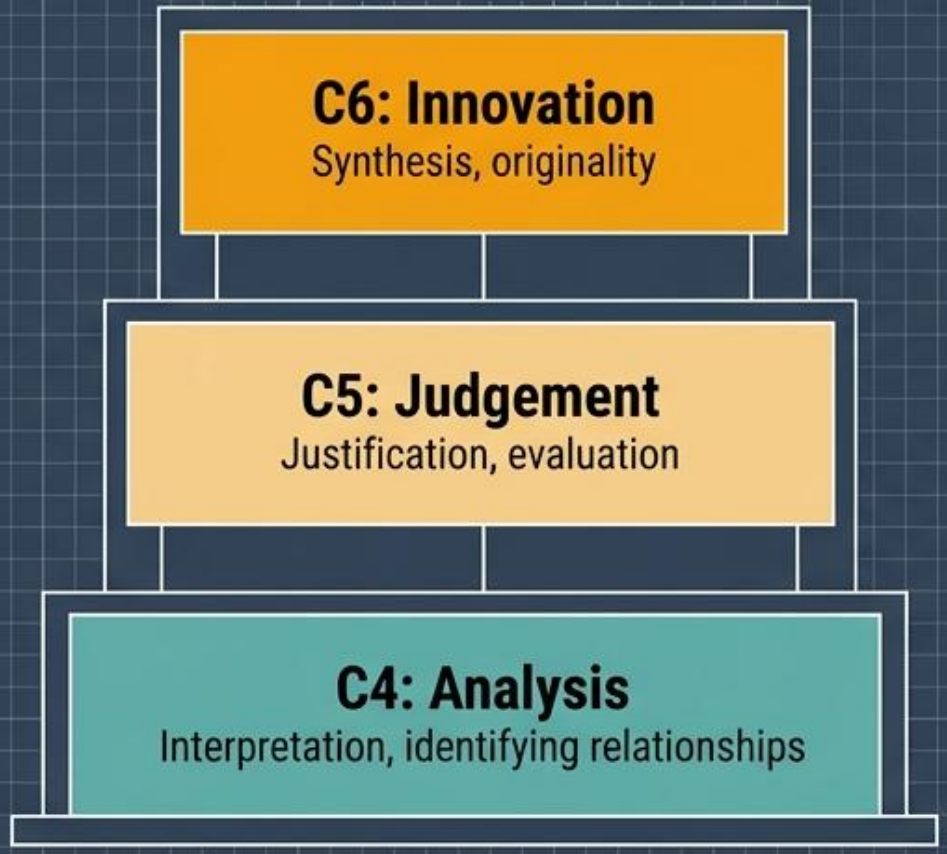
Sample Holistic Rubric

Task: Reflective Essay / Project / Presentation
Purpose: To assess overall quality based on a single integrated judgement

Level	Descriptor	General Description
4 – Excellent	Demonstrates outstanding understanding and performance	Highly coherent and insightful work. Ideas are original, clearly articulated, and strongly supported. Shows deep critical thinking and excellent organisation. Minimal or no errors.
3 – Good	Demonstrates strong understanding and performance	Clear and well-organised work. Ideas are relevant and supported with some depth. Shows good critical thinking, though not consistently insightful. Minor errors may be present.
2 – Satisfactory	Demonstrates basic understanding and performance	Shows some understanding but lacks depth. Ideas may be underdeveloped or loosely connected. Limited critical thinking. Organisation is inconsistent. Some errors affect clarity.
1 – Weak	Demonstrates limited understanding and performance	Unclear, poorly organised, or incomplete work. Ideas are minimal or irrelevant. Lacks critical thinking and coherence. Frequent errors interfere with understanding.

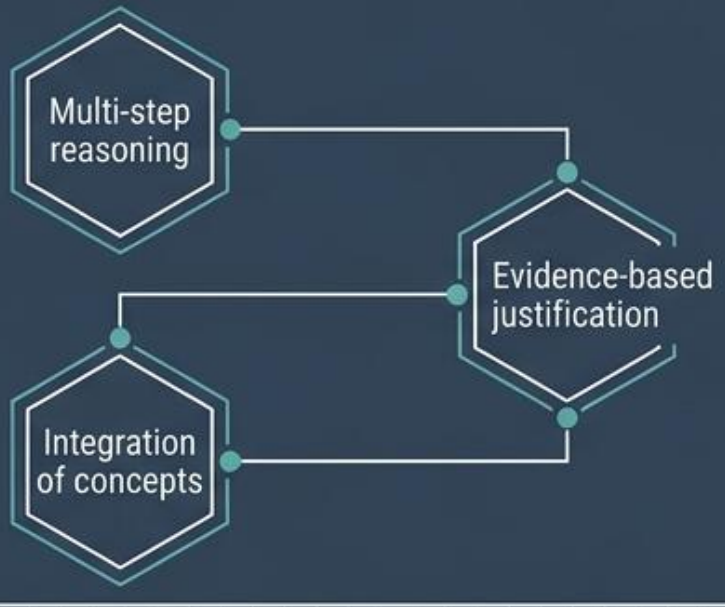
Calibrating Criteria & Mark Valuation

Cognitive Depth Gauge



The Valuation Bracket

Higher-order marks must reflect the depth of reasoning required, not the volume of output.



Exclusion Zone

INVALID CRITERIA
(Do Not Award HOT Marks For:)

- Simple recall
- Superficial features (Length)
- Presentation (Neatness)

Ensuring Fairness & Reliability in Subjective Assessment

A three-pillar framework for designing and evaluating equitable student assessments.

Prompt Clarity

Students must understand exactly what is required.

Do / Don't	
✗	Rely on vague, open-ended directives (e.g., Discuss, Comment).
✓	Use precise, unambiguous action verbs that explicitly define the expected output.

Bias Mitigation

Scenarios must not disadvantage specific backgrounds.

- Employ strictly neutral language across all assessment items.
- Design broad, inclusive scenarios that do not require specific cultural or socioeconomic assumptions.

Moderation Practices

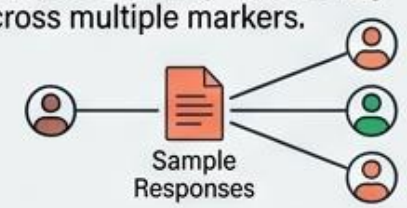
Systematic calibration across the assessment lifecycle.

Pre-Assessment

Post-Assessment

Proactive Alignment
Review items prior to deployment for clarity and syllabus alignment.

Reactive Calibration
Compare marking consistency across multiple markers.



Use benchmark sample responses to calibrate team marking.

PART 4: Hands-on

Group Activity

GROUP PROJECT: CREATING ASSESSMENTS FOR BLOOM'S TAXONOMY

TASK 1: MULTIPLE CHOICE QUESTIONS (MCQs)

C4: ANALYSIS (Analyze)

CREATE 2 ITEMS EACH WITH 4 OPTIONS

Break down information, examine components, find patterns

C5: EVALUATION (Evaluate)

CREATE 2 ITEMS EACH WITH 4 OPTIONS

Make judgments based on criteria and standards

C6: CREATION (Create)

CREATE 2 ITEMS EACH WITH 4 OPTIONS

Synthesize elements into a original structure or design

TOTAL: 6 MCQs

TASK 2: ESSAY ITEMS & RUBRIC

C4: ANALYSIS (Analyze)

CREATE 1 ITEM

Compare and contrast elements, analyze arguments

C5: EVALUATION (Evaluate)

CREATE 1 ITEM

Assess validity, critique theories

C6: CREATION (Create)

CREATE 1 ITEM

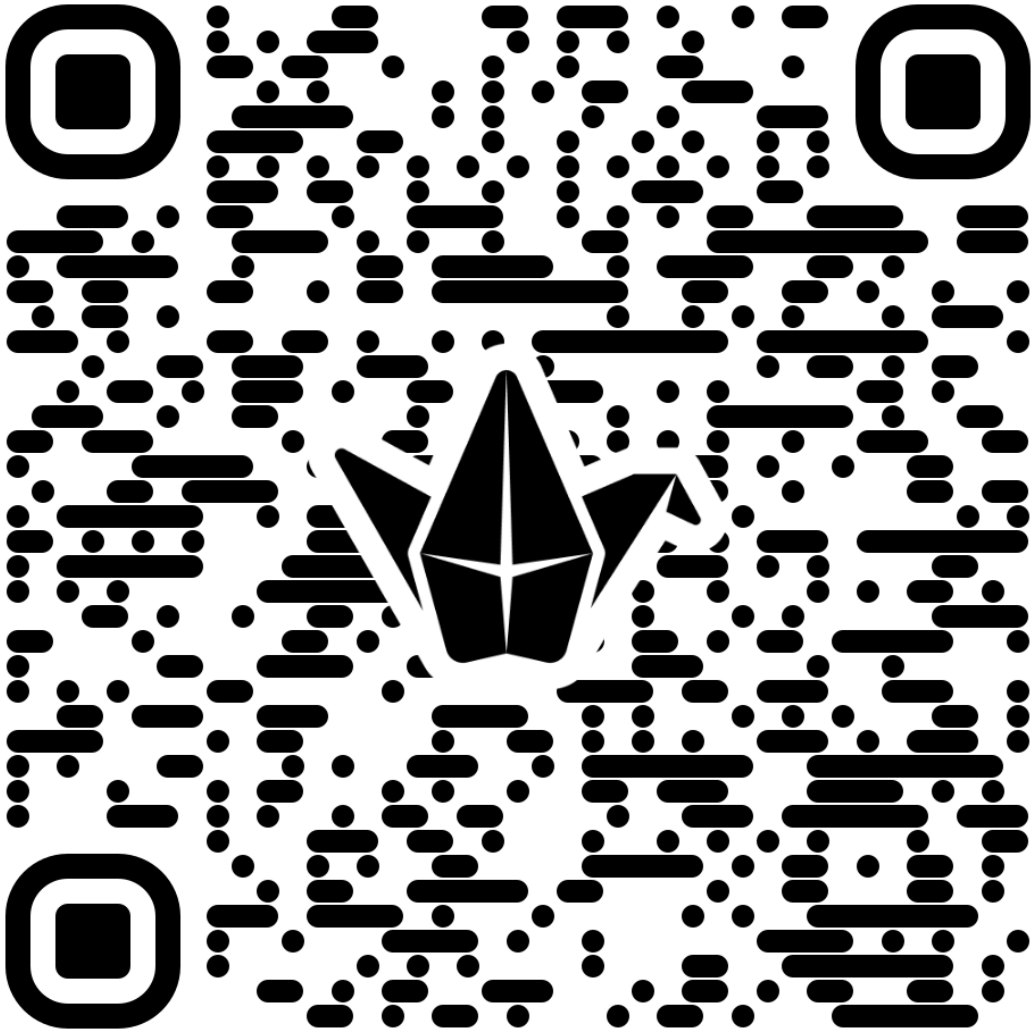
Develop a proposal, formulate a plan

WITH A DETAILED SCORING RUBRIC

TOTAL: 3 ESSAYS & 3 RUBRICS

TOTAL: 3 ESSAYS & 3 RUBRICS

MODERN EDUCATIONAL INFOGRAPHIC DESIGN



https://padlet.com/DrWira/group-task-h81qawkgob2q7fup

Thank you.