

The Teacher as Learning Architect

Designing the Future of Education with AI



Liang Sea Fong
Snr Teacher (Literature)
St Andrew's School (Secondary)

Who Does What? The Architect vs The Engine



Sets the learning goals and values.



Understands local culture and nuances.



Provides empathy and cares for students.



Makes all final pedagogical decisions.



Generates first drafts and materials.



Organises data and student records.



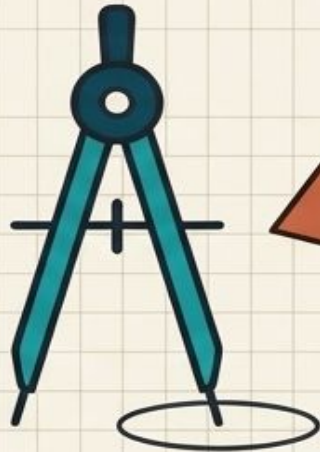
Suggests differentiated ideas.



Follows instructions without emotion.

AI is a scaffolding engine. It has no destination without a driver.

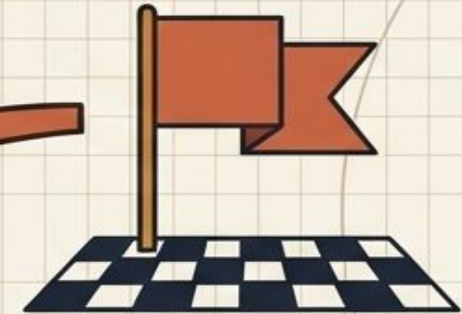
Pillar 1: Start with the Goal (Backward Design)



Plan Activities.
What materials and tasks do we need?



Determine Evidence.
How will we measure their success?



Identify Desired Results.
What must students know or do?

Would you build a house without knowing what it looks like? AI needs us to define the final outcome first.

The Architect's Measuring Tape: A-SMART Outcomes

A

Action-oriented:
Starts with a clear doing verb (e.g., "Write", "Calculate").

S

Specific:
Clear, simple, and unambiguous.

M

Measurable:
How will we check their understanding?

A

Achievable:
Realistic for the students' current level.

R

Relevant:
Matters to their real-world lives.

T

Time-bound:
When is the task due?

Weak Prompt: Make a lesson to learn English.



A-SMART Prompt: Create a lesson where students write **(Action)** a 3-sentence email **(Specific/Measurable)** about their weekend **(Relevant)** in 15 minutes **(Time-bound)**.

Pillar 2: Building Scaffolding for All Learners (UDL)

Scaffold 1:
Show it differently
(Representation)
AI can instantly turn complex text into a simple summary, an audio script, or a visual chart.

Scaffold 2:
Do it differently
(Action & Expression)
AI offers choices: students can write an essay, record a video log, or draw a storyboard to prove they understand.

Scaffold 3:
Engage differently
(Engagement)

AI connects tasks to local student interests (e.g., rewriting a maths problem to feature local South East Asian geography).

AI acts as a 'scaffolding engine'. It builds ramps for some students and stairs for others, keeping the rigor high for everyone.

The Goal

Shift Your Energy to What Matters

The Relationships.

Empathy, personalised feedback, and mentoring.

Only the Architect can do this.



**“Less time preparing.
More time connecting.”**

The Materials.

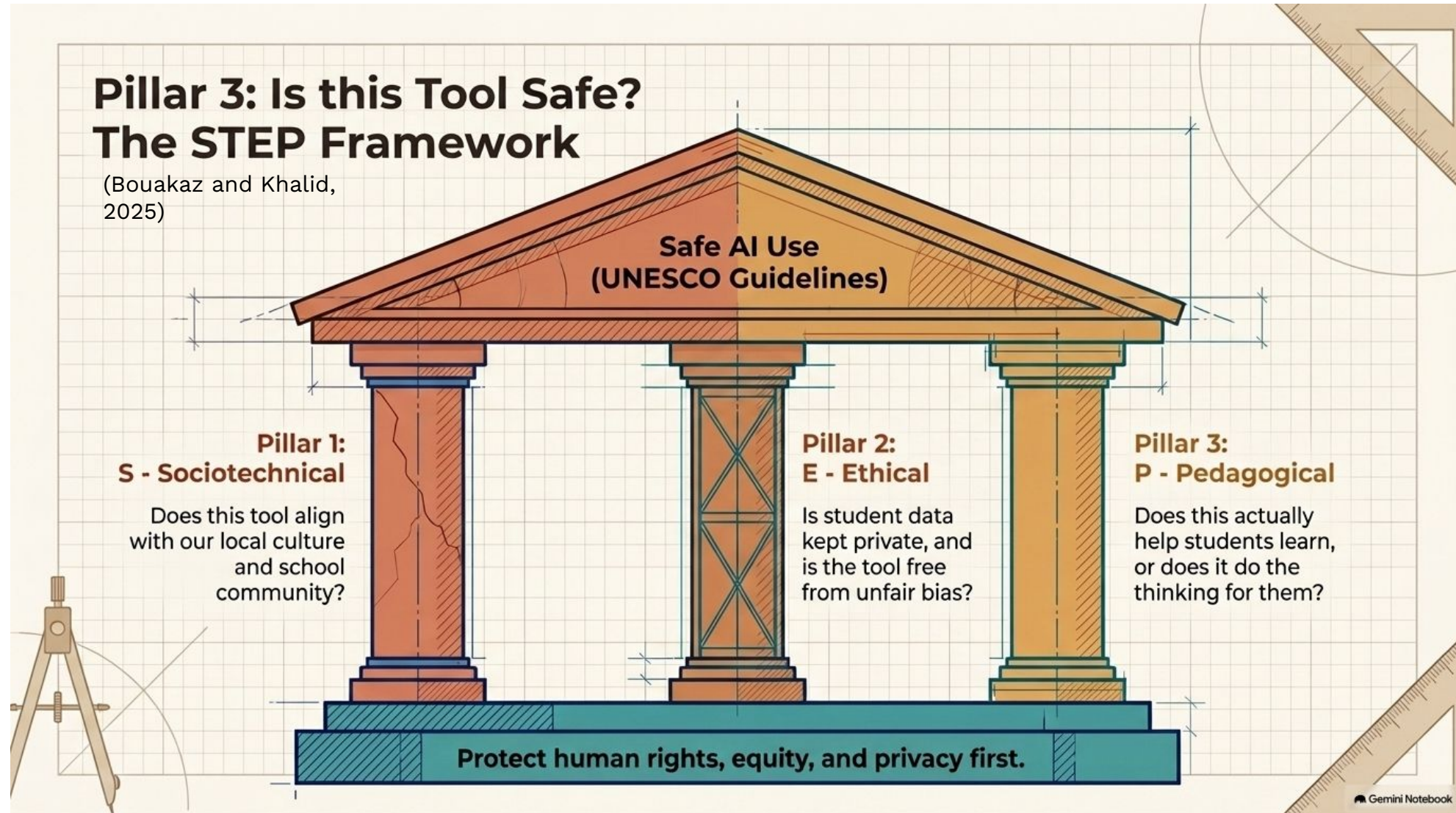
Routine drafting, formatting, and organising.

Let the AI Engine do this.

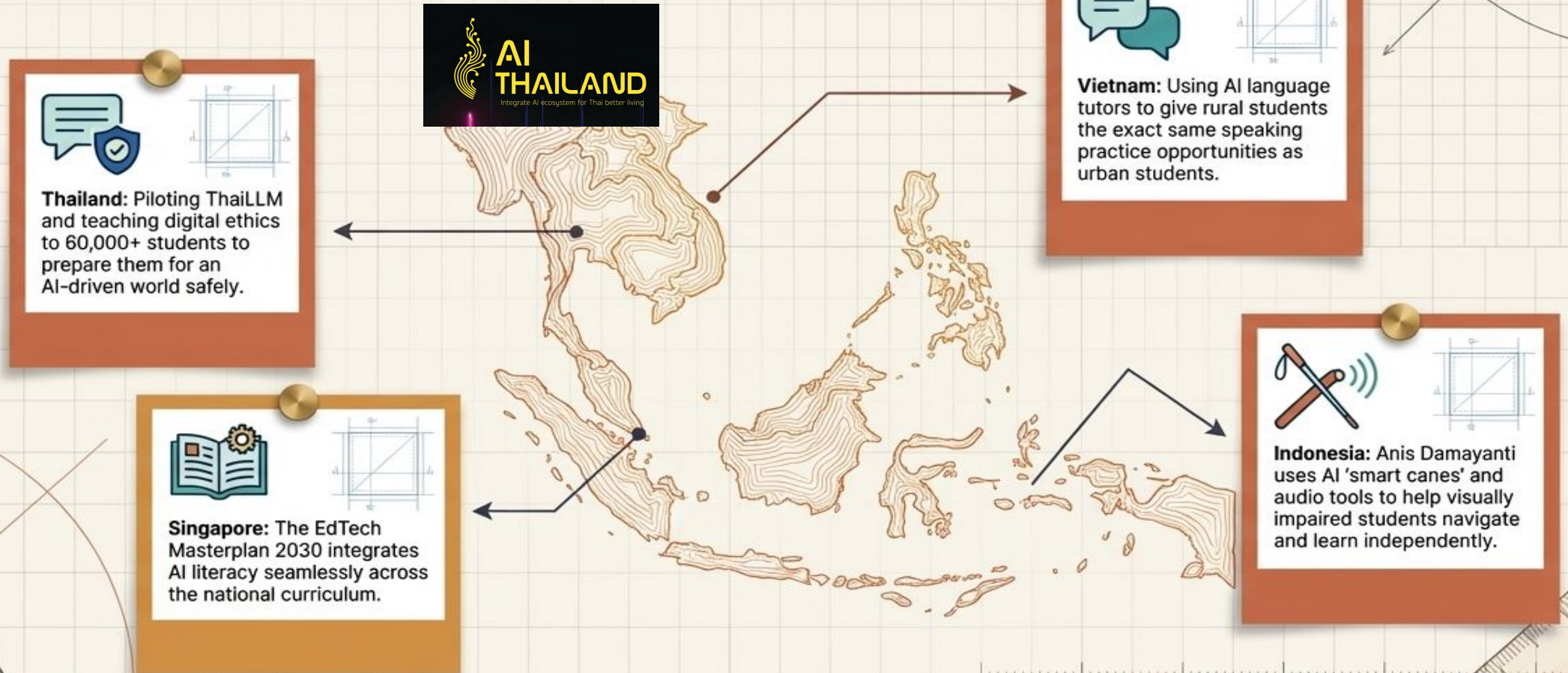


Pillar 3: Is this Tool Safe? The STEP Framework

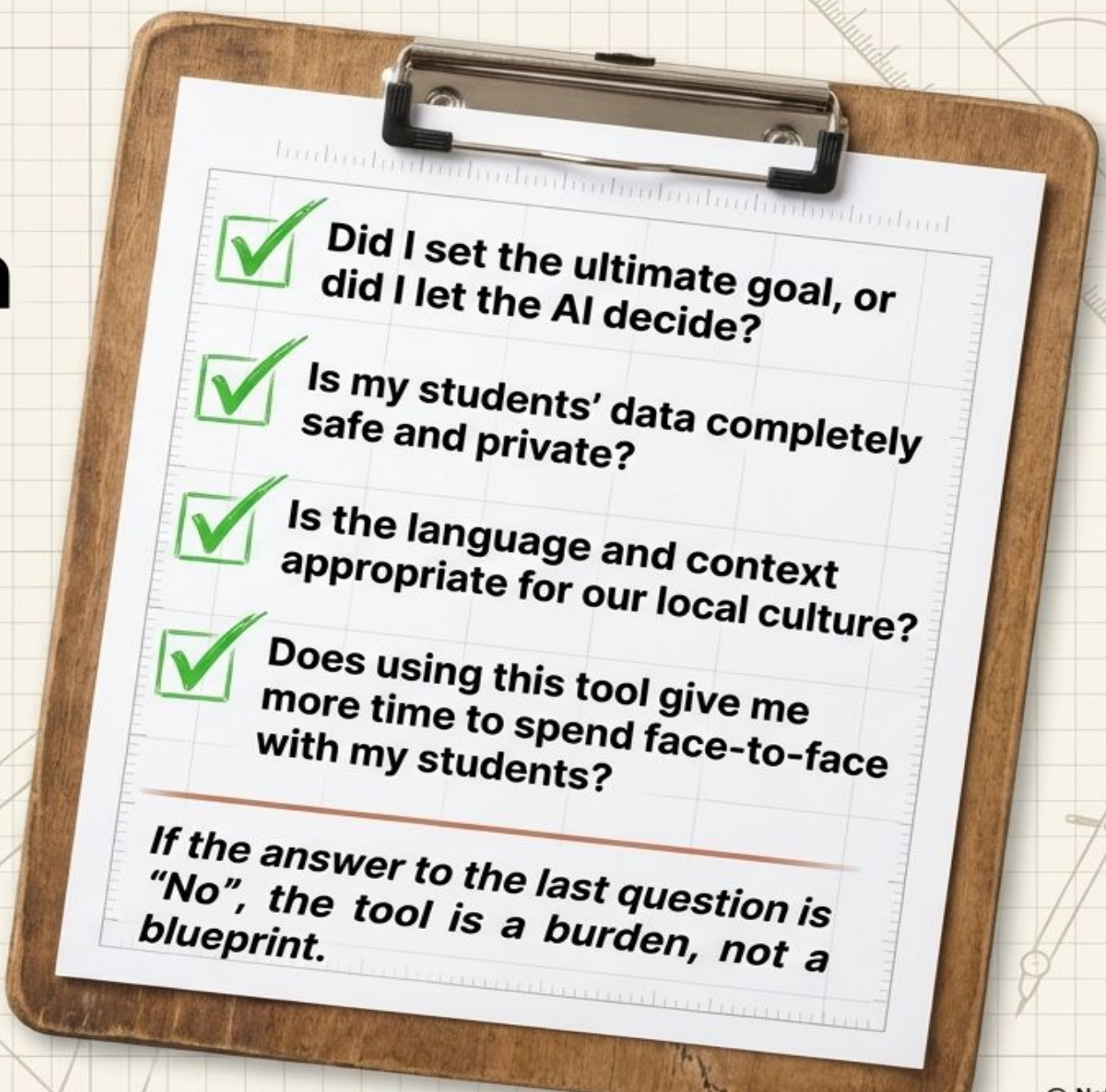
(Bouakaz and Khalid,
2025)



Architects in Action Across Our Region



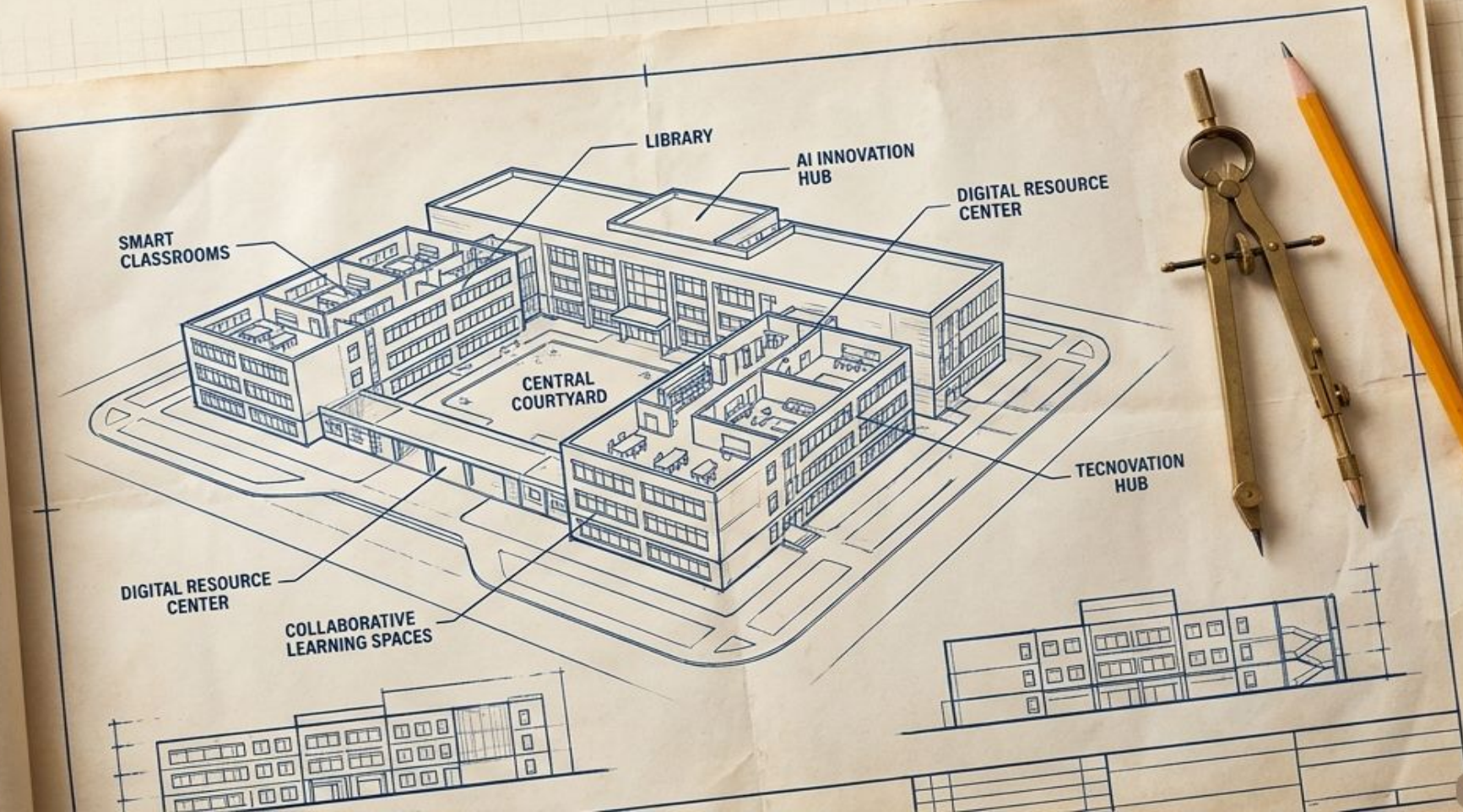
The Architect's Daily Inspection Checklist

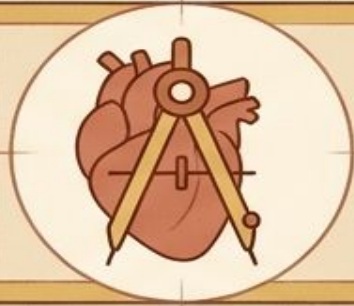
- 
- A wooden clipboard with a silver clip at the top, holding a white checklist on a grid background. The clipboard is tilted slightly to the right. In the background, there are faint architectural drawings, including a circle and a compass.
- ☒ Did I set the ultimate goal, or did I let the AI decide?
 - ☒ Is my students' data completely safe and private?
 - ☒ Is the language and context appropriate for our local culture?
 - ☒ Does using this tool give me more time to spend face-to-face with my students?

If the answer to the last question is "No", the tool is a burden, not a blueprint.

THE LEARNING ARCHITECT

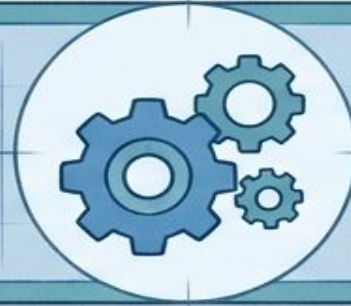
EVALUATING AI IN THE SOUTH EAST ASIAN CLASSROOM





The Architect (You)

- ✓ Sets learning goals and values.
- ✓ Understands local culture and nuances.
- ✓ Provides empathy and care.
- ✓ Makes all final pedagogical decisions.



The Engine (AI)

- ⚙ Generates first drafts and materials.
- ⚙ Organises data and records.
- ⚙ Suggests differentiated ideas.
- ⚙ Follows instructions without emotion.

**AI is a scaffolding engine.
It has no destination without a driver.**

The Architect's Daily Inspection Checklist

- ☒  **Goal:** Did I set the ultimate goal, or did I let the AI decide?
- ☒  **Privacy:** Is my students' data completely safe and private?
- ☒  **Culture:** Is the language and context appropriate for our local culture?
- ☒  **Time:** Does using this tool give me more time to spend face-to-face with my students?

The Golden Rule: If the answer to the last question is "No", the tool is a Burden, not a Blueprint.

The Regional Tour: 4 Classroom Case Studies

Let's travel across the region and look at four real AI classroom scenarios. Keep your checklist ready. For each scenario, we must decide together: Is this AI use a **Burden** or a **Blueprint**?



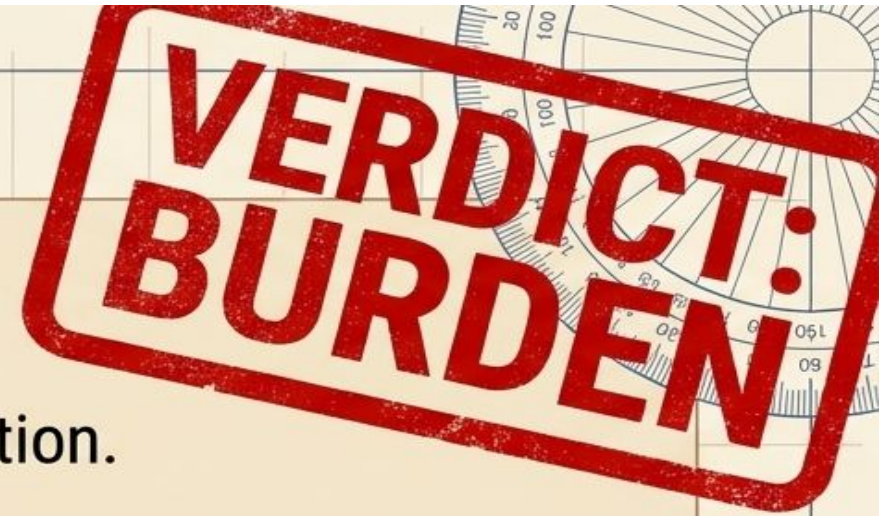


Vietnam

The Late-Night Lesson Plan

A tired teacher in Vietnam types “Make an English lesson” into an AI chatbot. The AI creates a lesson entirely about American snowstorms. To save time, the teacher prints it directly without editing.





**VERDICT:
BURDEN**



Goal: Failed. The teacher used a weak prompt and let the AI decide the destination.



Culture: Failed. Snowstorms are completely disconnected from the students' lived reality in Vietnam.

Have you ever felt tempted to let AI do all the thinking?
What is the danger of this?

Using AI without setting an A-SMART goal leads to irrelevant, disconnected lessons.



*Thailand*

A-SMART Scaffolding

A math teacher wants to teach fractions. She sets an A-SMART goal: “Students will calculate fractions using local fruit market prices.” She then asks the AI to rewrite the same math problem at three different reading levels to help her struggling readers.



**VERDICT:
BLUEPRINT**



Goal: Passed. The teacher set a firm, culturally relevant A-SMART destination.



Time: Passed. The teacher is freed from writing three separate worksheets, giving her more face-to-face time to coach students.

How does using AI to create different reading levels help your L2 English students access complex subjects?

AI acts as a Universal Design for Learning (UDL) engine, building scaffolds while the teacher keeps the rigour high.





Philippines

Copy-Paste Grading

A busy teacher uploads 40 student essays—including full names and personal stories—into a free, unknown online AI to grade them. The AI gives random, inaccurate scores. The teacher spends hours fixing the AI's mistakes.



**VERDICT:
BURDEN**



Privacy: Failed. Uploading student names and personal stories violates data privacy.



Time: Failed. 72% of teachers report AI disrupts instructional flow. Fixing bad AI outputs takes longer than grading it yourself.

What are the specific rules in your school regarding student data? How can we grade safely?

Key Takeaway: Data privacy is non-negotiable. If managing the AI takes more time than teaching, it increases teacher frustration and student passivity.

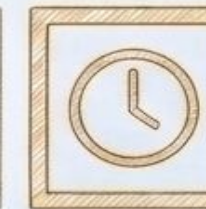


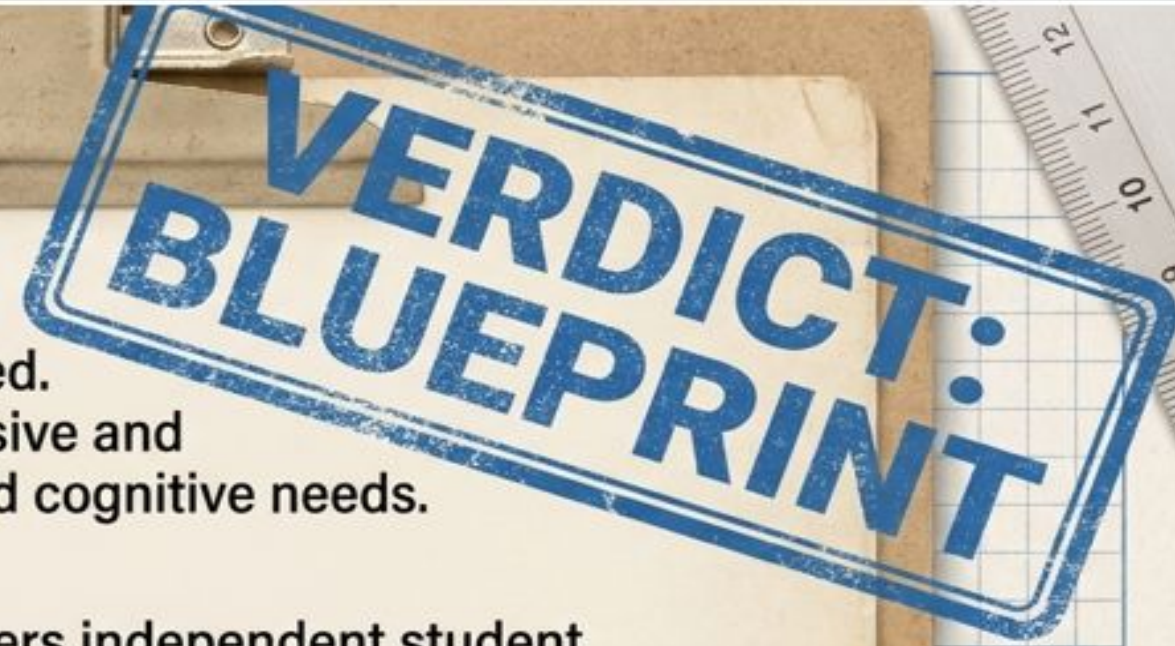


Indonesia

Inclusive Choice Boards

Teacher 'Anis' has a mixed-ability class, including visually impaired students. She uses AI to quickly generate a 'Choice Board'. Students can choose to write a story, record an audio log, or use AI screen-readers to present their ideas independently.





[✓] Culture (Empathy): Passed.
The approach is highly inclusive and respects diverse physical and cognitive needs.



[✓] Time: Passed. AI empowers independent student learning, freeing Anis to mentor students individually.

How could an AI-generated Choice Board change the way special needs students participate in your classroom?

AI transforms limitations into boundless opportunities when teachers use it to create inclusive choices.



	Vietnam (Late-Night Plan)	Thailand (A-SMART Scaffolds)	Philippines (Copy-Paste Grading)	Indonesia (Choice Boards)
Goal	✗	✓	-----	✓
Privacy	-----	✓	✗	✓
Culture	✗	✓	-----	✓
Time	N/A	✓	✗	✓

Blueprints succeed by intentionally answering 'Yes' to the Architect's Checklist. Burdens fail when we let the Engine drive.



Your Classroom Inspection

Think of **ONE** way you plan to use AI in your classroom next week. Run it through your inspection checklist right now:



1. Will you set the **learning goal**?



2. Is student data completely **safe**?



3. Is the output **culturally relevant**?



4. Will this give you more **face-to-face time**?



Take 2 minutes of silent reflection to write down your plan.

**The technology
is just the engine.
You are the
Architect.
Build wisely.**

Your humanity, empathy, and cultural understanding are the ultimate tools AI can never replicate.



The background is a photograph of a smiling female teacher in a classroom, with students seated at desks in the background. Overlaid on the image are white architectural lines, including a grid, arcs, and dimension lines with labels like '36', '111', and '3 cm'.

**AI cannot smile at a student having a bad day.
AI cannot understand local jokes.
AI cannot inspire a child.**

AI is just the tool. You are the Architect.



**40th (ACT+1) Pre-Convention
Concurrent Session Feedback Form
for 22 Oct**

