

Four Design Decisions That Carry a Lesson

Lesson design is a set of decisions made before learners arrive. These four do most of the work.

Small steps, checked

New material in steps small enough that nobody falls off, with a check after each one. Pace comes from success, not speed.

In class: Teach one step, ask everyone to do one on whiteboards, scan, then move or reteach.

Example before practice

Novices learn more from studying a worked example than from struggling unguided. Show the whole solution, narrate the decisions.

In class: Here is a finished answer. Watch which step I do first and why, then try the twin.

Fade the support on purpose

From full example, to partially completed, to independent. The fading is planned, not accidental.

In class: Monday full model, Wednesday gap-fill model, Friday blank page.

Review beats re-teaching

Daily and weekly retrieval of prior content keeps it usable and exposes what faded. Five minutes, every lesson.

In class: Lesson opener: two questions from last lesson, two from last month.

I Do, We Do, You Do Cards

The gradual release sequence as planning prompts. The most common failure is skipping the middle.

I do

Model the task while thinking aloud, including a wrong turn and the recovery. Learners watch, not copy.

Say: "What decisions will I narrate aloud, including one mistake?"

We do

The class works the next example with you: they suggest, you scribe, errors become teaching points.

Say: "Which example do we solve together, and who will I cold-call?"

You do together

Pairs attempt a twin problem while you circulate to the learners the checks flagged.

Say: "What is the twin task, and which five learners do I visit first?"

You do alone

Independent practice only once success rate looks high. Stopping here too early is the expensive mistake.

Say: "What evidence tells me they are ready: whiteboards, exit data, or hope?"

Checks That Beat 'Any Questions?'

Checking for understanding only works when every learner produces evidence.
Four formats that take under two minutes.

Whiteboards up

Everyone answers, everyone shows, you scan thirty answers in ten seconds.

In class: Write the next step only. Show me on three. One, two, three.

Cold call, warm climate

Names from a list, not hands. Signal that being picked is normal, and wrong answers are data.

In class: I am asking four people. There is no opt-out, and a half-answer is a fine start.

The hinge question

One multiple-choice question whose wrong options each reveal a specific misconception.

In class: If they choose B, they have confused mass with weight. The next ten minutes depend on this.

Exit ticket, one question

One question at the door that tells you where tomorrow starts. Sort into three piles, not marks.

In class: Piles: got it, nearly, reteach. Tomorrow opens with the nearly pile's error.

Lesson Design Pre-Flight

Ten questions before the lesson. Design beats improvisation, especially on hard content.

The content

- The new material is broken into steps a struggling learner can survive.

- A complete worked example exists, and I know which decisions to narrate.

- The example has a twin for guided practice and another for independent work.

- Prior knowledge needed today appeared in a recent retrieval starter.

The checks

- After each step there is an all-learner check, not a volunteer check.

- One hinge question is written, with wrong options mapped to misconceptions.

- I know my decision rule: what percentage success moves us on.

The support

- Scaffolds are planned WITH their fading point, not just their introduction.

- Independent practice is long enough to matter: most lessons underfeed it.

- The exit ticket question is written and answerable in one minute.

Lesson Design: A 5-Minute Evidence Briefing

What the research behind this pack says, and the boundaries of the claims.

■ **Explicit teaching has a deep evidence base**

Across 328 studies and fifty years, Direct Instruction programmes show consistently positive, durable effects, comparable in size to closing the advantage gap. Guidance-first teaching is the safest default for new material.

■ **Worked examples are the novice's fast lane**

Studying a worked solution beats unguided problem-solving for beginners: load drops per step and both retention and transfer improve. Expertise reverses this, so fade examples as fluency grows.

■ **Fading plus self-explanation is the strongest combination**

Faded examples with prompts that make learners explain the steps outperform static examples: the support withdraws as competence arrives.

■ **The honest caveat**

The strongest DI evidence comes from structured programmes, not from individual techniques used loosely, and Rosenshine's principles are a synthesis rather than a trialled package. The design logic is sound; your checks for understanding are the proof it is working here.

Evidence base

Stockard, J., Wood, T.W., Coughlin, C. and Khoury, C.R. (2018). The effectiveness of Direct Instruction curricula: a meta-analysis of a half century of research. *Review of Educational Research*.

Chen, O., Retnowati, E. and Kalyuga, S. (2023). The effect of worked examples on learning solution steps and knowledge transfer. *Educational Psychology*.

Shin, Y. et al. (2023). The effects of worked-out example and metacognitive scaffolding on problem-solving programming. *Journal of Educational Computing Research*.