

Scaling insights, not just grades

AI-powered marking as a catalyst for teacher agency

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40TH ASEAN COUNCIL
OF TEACHERS + KOREA
CONVENTION

NAVIGATING OUR FUTURE

STEERED BY TEACHERS;
ANCHORED IN RELATIONSHIPS;
PROPELLED BY AI



22-25 OCTOBER 2026 · D'MARQUEE, SINGAPORE



PART 1 · TODAY'S CLASSROOM

Marking takes time, and time is the problem



A different feedback cycle

TODAY

Work → marking → return → next topic

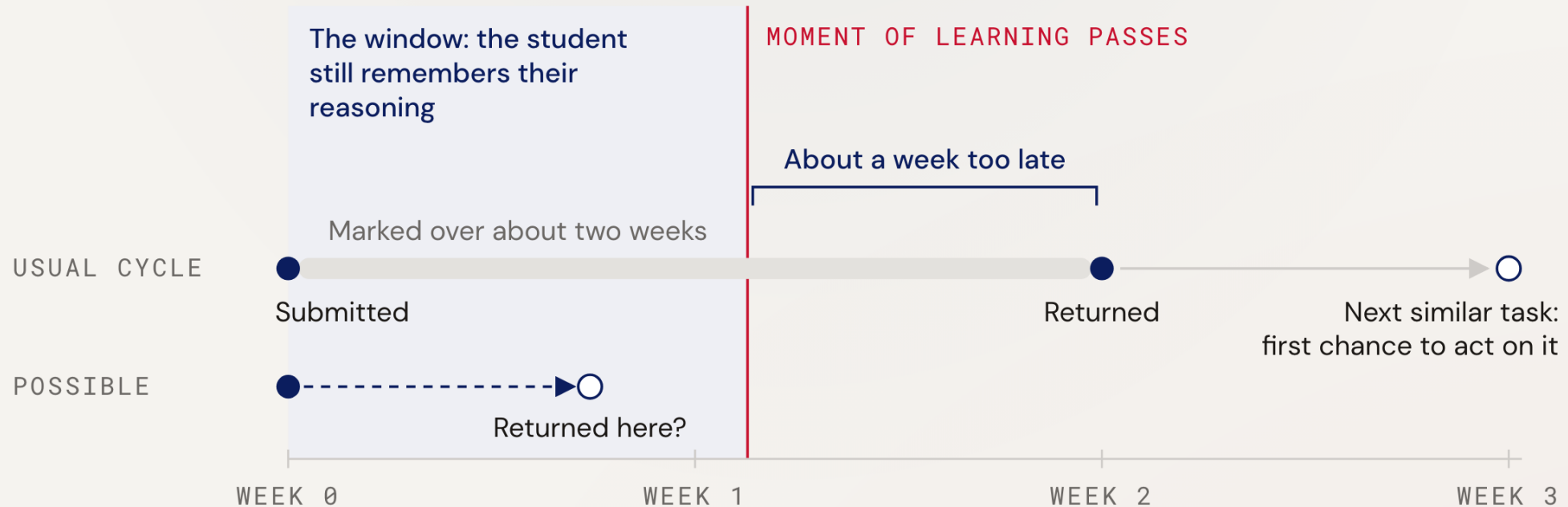
A comment arrives. The class has already moved on.

POSSIBLE

Attempt → feedback → correction → check

AI drafts sooner. The teacher decides. The student acts on it.

Feedback often returns after the moment of learning has passed



Return something inside the window: one question marked for everyone beats every question marked late.

Timeline illustrative, from teachers' accounts, 2026.



TRY IT · 2 MINUTES, WRITE YOUR SCORE DOWN FIRST

Your score: ___/3

Solve $3(x + 2) = 21$

STUDENT WORK

$$3x + 6 = 21$$

$$3x = 15$$

$$x = 15 - 6 = 9$$

ANSWER SCHEME · 1 MARK PER CORRECT LINE

$$3x + 6 = 21 \quad [1]$$

$$3x = 15 \quad [1]$$

$$x = 5 \quad [1]$$

Task and scheme written for this session: one mark per correct line, not an exam-board scheme.



ANSWER

2 / 3 under this scheme

STUDENT WORK

$$3x + 6 = 21 \quad \checkmark$$

$$3x = 15 \quad \checkmark$$

$$\underline{x = 15 - 3 = 12} \quad \times$$

ANSWER SCHEME · 1 MARK PER CORRECT LINE

$$3x + 6 = 21 \quad [1]$$

$$3x = 15 \quad [1]$$

$$x = 5 \quad [1]$$

The score tells you which lines earned marks. It doesn't tell this student what to do next.



SINGAPORE TEACHERS · EVERY WEEK

6.4 hours

on marking, every week. The OECD average is 4.6.

OECD TALIS 2024, Singapore country note, lower-secondary teachers, self-reported.



WHAT TEACHERS TELL US

“We give them past year exam papers... we probably won't have time to mark through, lah.”

A SECONDARY CHEMISTRY TEACHER

Ren conversation records with schools, 2026. Schools anonymised.

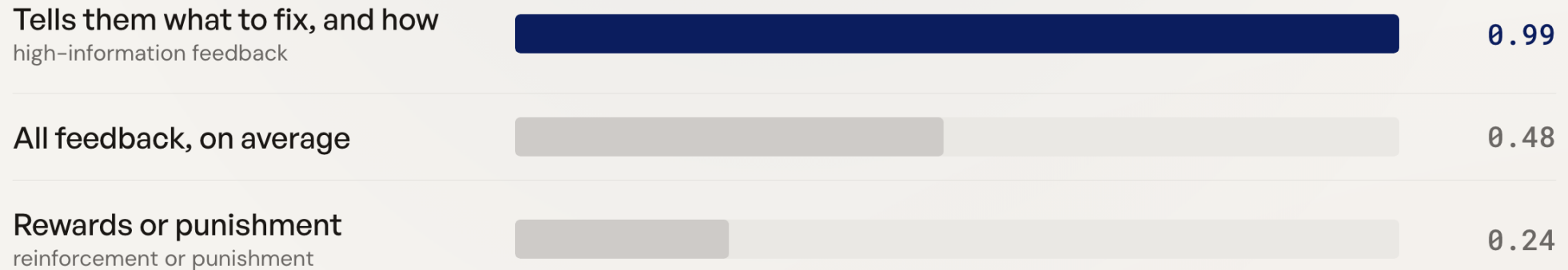


PART 2 · PROPELLED BY AI

It reads and drafts, built on what good feedback is



Feedback helps when it carries information



Learning gain (effect size) · 435 studies, 2020

Over a third of feedback interventions made performance worse.

For your own comments: say what is wrong and what to do next, not 'well done' or 'try harder'.

Wisniewski, Zierer & Hattie, *Frontiers in Psychology* 10:3087, 2020. Kluger & DeNisi, *Psychological Bulletin* 119(2), 1996. High heterogeneity; see Slavin, 2018.



What a comment can do, from the result to the next step

Report the result

KR · KNOWLEDGE OF RESULTS

Give the correct answer

KCR · CORRECT RESPONSE

Diagnose the mistake

ELABORATED

Explain the concept

ELABORATED

Direct the next step

ELABORATED

Teach a way to check your own work

SELF-REGULATION

Narciss, 2008 (elaborated feedback). Hattie & Timperley, Review of Educational Research 77(1), 2007 (feedback levels).



In 500 real comments, most just report the result

44%

of what comments do is report the result

1 in 4

comments carry both a diagnosis and a next step

REPORTS THE RESULT

"2/3. Good effort, but be careful with your last step."

Ren feedback-function pilot, 500 feedback notes from real marking, AI and teacher, Aug to Sep 2026: model-classified, one human coder, estimates.



One comment, rewritten

A TYPICAL COMMENT

"Good effort! Most of your working is correct, but be careful with your final step. $2/3$ "

WHAT YOU DID

Your expansion and the -6 step are right.

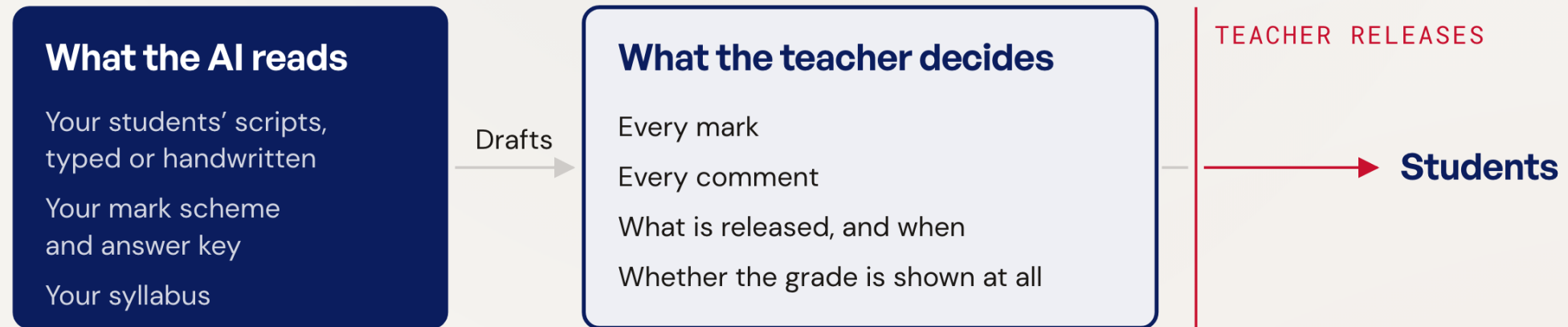
THE PROBLEM

In the last line you subtracted 3. $3x$ means 3 times x , so undo it by dividing.

WHAT TO DO

Divide 15 by 3. Then put x back into $3(x + 2)$: do you get 21?

The AI reads and drafts. The teacher decides.



Nothing reaches a student until a teacher releases it.

What the teacher actually sees

1

$$R_f \text{ value} = \frac{5.5}{8} = \frac{11}{16} = 0.69 \text{ (to 2 d.p.)}$$

The R_f value of compound A is 0.69.

2

Text read

$R_f \text{ value} = 5.5/8 = 11/16 = 0.69 \text{ (to 2 d.p.)}$ The R_f value of compound A is 0.69.

3

Correct R_f calculation to 2 d.p. No marks deducted.

8e(i) 1 / 1

- 1 The handwriting. 2 What it read. 3 Draft mark and comment.

4

• Snippet There is a clear languag... ↗

Give student suggestion on how to improve

5

Possible wording:

"Use 'regardless of the severity of the crime,' not 'regardless the severity of crime.' Here, 'the crime' is more accurate because you are referring to a specific offence."

- 4 Ask for a better comment.
5 You decide whether to use it.



THE COST NOBODY PRINTS ON THE BROCHURE

**“If I take away the marking time, but then every
teacher is going crazy trying to scan everything in...”**

A PRIMARY ENRICHMENT PROVIDER, 2026

Ren conversation records, 2026.



Scanning is the problem schools raise with us most

Most-named workflow problem

14 mentions, 10 schools and providers (as of Sep 2026)

What helps

Batch scanning, auto-split cover pages, phone upload, paperless classes

Hours it costs

Not yet measured, by anyone we know

Ren conversation records, primary to JC and one international school, collated as of 24 Sep 2026.

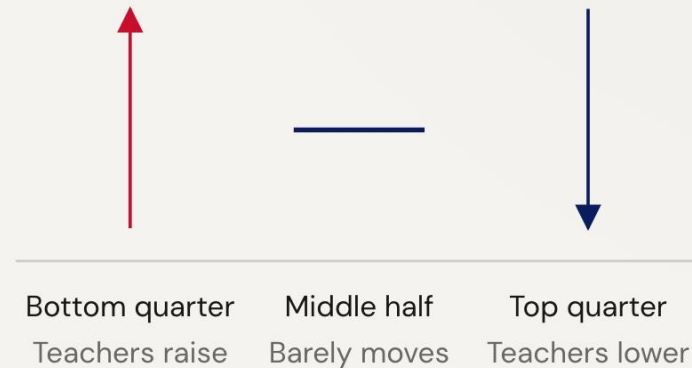


PART 3 · STEERED BY TEACHERS

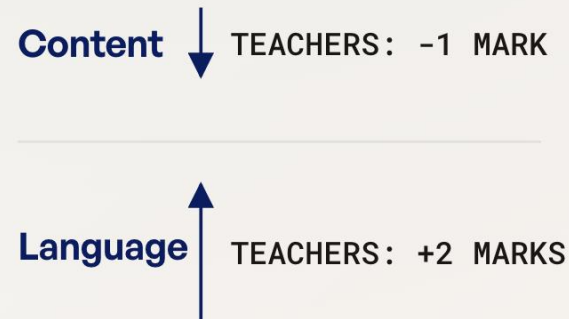
Where to trust it, and where to be wary

What teachers change shows where their judgement lives

Across the mark range



By component



Grammar and style flags

48%
of grammar and style flags
rejected by teachers

The AI spread marks too wide. Teachers pulled both ends in.

Teachers' edits after the AI's first pass: one JC General Paper department, over a thousand scripts, 2026. Arrows show direction only, not to scale.



Teachers fix harsh marks less often when AI made them

22%

larger fairness gap when an unduly harsh mark was labelled as AI.

1,339 teachers, preregistered randomised trial, 2026.



TRY IT · 2 MINUTES, THEN FIST TO FIVE

Would you release this comment?

STUDENT WORK · $3(x + 2) = 21$

$$3x + 6 = 21$$

$$3x = 15$$

$$x = 15 - 3 = 12$$

AN AI-DRAFTED COMMENT

"Your expansion is incorrect: $3(x + 2)$ should be $3x + 2$.
Review how brackets work. 1/3"

- 1 Is it true of this script?
- 2 Does it give one next step the student can take?
- 3 Would I sign my name to it?

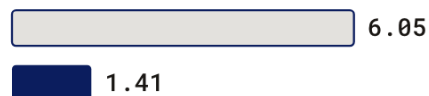
Draft written for this session to show a misreading error; not a recorded Ren output.



Where to lean on it, and where to slow down

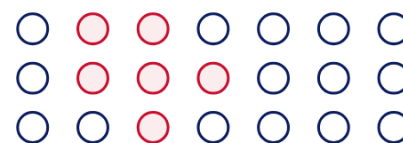
LEAN ON IT FOR

MARKS AWAY FROM TEACHER



A first pass against a clear mark scheme

Physics practical: 4× closer once our reading of the scheme was fixed



The common errors across a class

before you teach, not after

DRAFT



A first draft of each comment

which you then make yours

SLOW DOWN ON

HOW OFTEN TEACHERS FIX IT



Harsh marks

the errors teachers catch least



Native

≠



Non-native

Non-native writers

the same work can be marked differently, 2025 study

KEY A B D

1 wrong character



The answer key it is using

one wrong character zeroed 8 of 10 correct answers

Ren benchmark programme, May to Aug 2026, schools anonymised. Goulas et al., PNAS Nexus 5(6), 2026 (bars show direction only). Yang et al., arXiv 2504.21330, 2025. Not today: video, audio, presentations, code, method marks, half marks, group work.



THE OBJECTION THAT MATTERS MOST

“When I write a piece of homework for [my teacher], I want [my teacher] to read it.”

A DEPUTY PRINCIPAL, SPEAKING FOR HER STUDENTS

Ren conversation records, Aug 2026.



PART 4 · ANCHORED IN RELATIONSHIPS

Put the friction back

Remember your score? You wrote it down before you saw ours. That is the move.



Students want a human reader, and a reason to think

-
- 01 Teacher feedback: more helpful, more trusted. AI: valued for speed. 'Complementary but not interchangeable.'
- 6,960 university students, Australia, 2025
-
- 02 Comments alone beat comments plus a grade.
- Butler, 1988, Grades 5 and 6
-
- 03 Self-assessing first beat direct AI critique on later work done without AI.
- Ates, 2026, n = 1,176, first-year university
-

Henderson et al., Assessment & Evaluation in Higher Education, 2025. Butler, British Journal of Educational Psychology, 1988. Ates, 2026, preregistered cluster-randomised.



A cycle that puts the gap to work

DIFFERENT · COMMIT, COMPARE, RESOLVE



A disagreement only teaches if it is noticed, low-stakes and resolved.



ROUTINE 1 OF 3 · STUDENTS, A NEW CONCEPT

Attempt first, then teach, then compare

1

A short task before you teach it

Plus: how sure are you, 1 to 5?

COMMIT

2

At first pass, overnight

And a class report of the common errors

3

Teach from their attempts

Two typical answers, side by side

4

Comments back, mark held

Students check their own attempt

COMPARE

5

Fix one answer, say why it was wrong

Quiz it again a week later

RESOLVE



ROUTINE 1 · STEP 2 IN PRACTICE

By morning, you know what to teach from

Performance by Topic

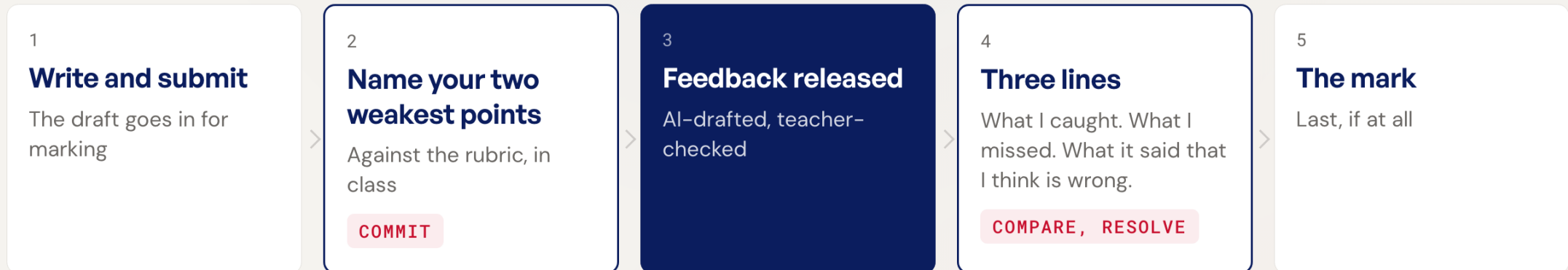


ren. class report, one Chemistry assignment, as of Sep 2026.



ROUTINE 2 OF 3 · STUDENTS, EXTENDED WRITING

Judge your own work first, then read the feedback



One pattern, shown in their own handwriting

ren. student review screen, as of Sep 2026.



ROUTINE 3 OF 3 · YOU, MARKING

Mark three scripts yourself before you open the AI's marks

1

Mark three, strong to weak

Before you look at anything

COMMIT

2

AI marks the class

Your three included

3

Question by question

Where is it harsher than you?
Softer?

COMPARE

4

Name each gap

A scheme fix, or my own drift.
Write it into the rubric.

RESOLVE

"I marked it physically... I realised that the human marking, which is my own one, right, was more strict... deviation was, like, 1 or 2."

A SECONDARY CHEMISTRY TEACHER



You already have the language for this

ROUTINE	SINGAPORE TEACHING PRACTICE AREA	FORMATIVE STRATEGY
1 · Attempt first	Setting Meaningful Assignments; Checking for Understanding and Providing Feedback	Tasks that draw out evidence of learning
2 · Judge first	Supporting Self-Directed Learning	Students as owners of their learning
3 · Mark blind first	Checking for Understanding and Providing Feedback, on your own marking	A shared standard

ⓘ Each mechanism is well evidenced. These AI versions have not been trialled in schools. Pilot, measure, and let teachers judge.

Singapore Teaching Practice, Academy of Singapore Teachers. Black & William, Educational Assessment, Evaluation and Accountability 21, 2009. MOE: AI in education “is grounded in the Singapore Teaching Practice”, moe.gov.sg, Jul 2026.



PART 5 · FOR YOUR DEPARTMENT

Test any tool before you trust it



FOR YOUR DEPARTMENT · 1 OF 3

Before you commit to a tool, test it on scripts you've marked

- 1 Pick six scripts you've already marked, strong to weak.
- 2 Run the tool twice, without showing it your marks. Where the two runs disagree is its margin.
- 3 Compare question by question, outside that margin. Harsher? Softer?
- 4 Check the answer key the tool is using.
- 5 Decide together. Mark the first six with your newest colleague beside you.

Method from Ren's benchmark programme, May to Aug 2026: one wrong character our extraction wrote into an answer key zeroed 8 of 10 correct answers on one question.



FOR YOUR DEPARTMENT · 2 OF 3

Twelve questions for your department, about any tool

Rigour

Does it mark the way we mark?

- 1 Its marks against our teachers' marks, on our scripts?
- 2 Where does it disagree most: questions, bands, students?
- 3 Is it harsher than us anywhere?
- 4 Can it show why, against the mark scheme?

Speed

Does feedback reach students while they can still use it?

- 5 Submission to usable feedback: how long, scanning included?
- 6 Is there lesson time to respond, or just faster comments?



FOR YOUR DEPARTMENT · 3 OF 3

Twelve questions for your department, about any tool

Teacher control

Who decides?

- 7** Can I edit every mark and comment before release?
- 8** What do my corrections change, for my department only?
- 9** How do beginning teachers keep learning the standard?

Data

Whose scripts, and where do they go?

- 10** Who owns scripts and marks? Kept how long? Deletable?
- 11** Are scripts used to train any model? Is that in the contract?
- 12** Names removed before processing? Where is data stored?

Unclear on 7 (approval) or 11 (training)? Stop.

Q12: MOE parliamentary reply, 6 May 2026. Adapted from questions Ren drafted for a reading primer, Sep 2026.



An offer, if it's useful

If your department wants to run a 6-script calibration benchmark against your own marks,
that is how we start.

hello@reneducation.com · reneducation.com

How our school pilots start, as of Sep 2026.



TRY IT · 3 MINUTES, ON PAPER OR YOUR PHONE

Write one plan before you leave

If a marking moment this term ,
then I will one routine ,
and I'll know it worked if what I'll check .

WEAK

I'll try AI marking.

STRONG

If I collect 3E's essays on Tuesday, then before they see my comments they'll name their two weakest points, and I'll know it worked if half name the gap I name.

If-then plans: Gollwitzer & Sheeran, Advances in Experimental Social Psychology 38, 2006, 94 tests, $d = 0.65$, outside teaching.



QUESTIONS

**Your questions,
especially the hard ones**



Take this to your head of department

The three routines, the comment check, your plan and
the twelve questions.

reneducation.com

hello@reneducation.com

Thank you.



Scan to reach us.



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

