

Trained to stop learning: Students, assessment and AI

Mack Marshall, Editorial Coordinator

I have 40 mins to deliver this

And 40 slides (ish)

Please strap in...

~~THE SECRET~~ LIFE OF STUDENTS

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What we already know

Students use AI.

I have 40 mins

What we already know

How, why and when they decide to use it is a much trickier question to answer.

What we already know

Students use AI.

How, why and when they decide to use it is a trickier question to answer

- 92% of UK undergraduates use AI. 88% use it for assessed work. ChatGPT dominates at 74%.
- Primary drivers: saving time (51%), improving quality (50%).
- 67% believe AI skills essential — only 36% have received training.
- These findings are established. We started where the existing evidence stops.

What we set out to answer

- Students learn same with AI
- Students learn nothing with AI
- Students learn different things with AI

Few headline findings...

- There's 15 findings in our research
- Top line is students are submitting work they cannot fully explain
- Students face AI policies that don't function in practice
- Students respond strategically to assessment systems that reward production over understanding
- Cost of incoherence falls on most conscientious students

Before I dig in...

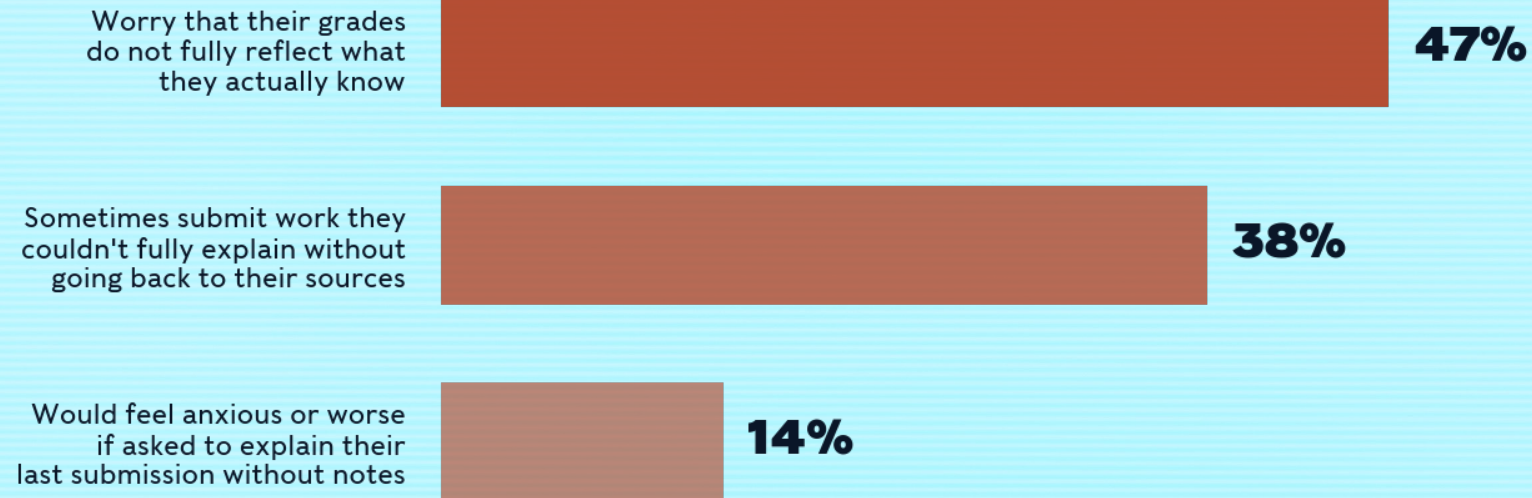
- A lot of the findings and recommendations are about whether HE asks students to be present
- To think, to struggle, and to understand (and has it settled with asking them to produce)
- And this question predates AI
- The sector's response should not start with what to do about AI.
- It should start with what assessment is for.

Findings 1 and 2

- Finding 1: The gap between submitting work and understanding it predates AI — and assessment design is making it wider.
- Finding 2: AI use is not one thing, and treating it as one thing has left students without useful guidance.

Understanding gap

Three measures paint a progressively worse picture.
The understanding gap predates AI — and assessment design is making it wider.



AI use is not one thing

1. Search engine replacement
2. Structural scaffolding
3. Debugging partner
4. Always-on tutor
5. Prerequisite substitute
6. Production accelerator

AI use is not one thing

1. Search engine replacement — using AI because library systems fail
2. Structural scaffolding — organising thinking without touching the intellectual content
3. Debugging partner — correcting work in real time
4. Always-on tutor — patient, available, non-judgemental
5. Prerequisite substitute — filling knowledge gaps courses assume have been closed
6. Production accelerator — the only mode warranting real concern about academic integrity

AI use is not one thing

The same student routinely moves between modes on the same assignment. Any policy that treats AI use as a single behaviour will misfire.

Did you use AI in this assessment?

No, I used it to ask a question at 3am? Does that count as using AI

Students AI use is also diagnostic about what the institution is not providing

Blanket policies

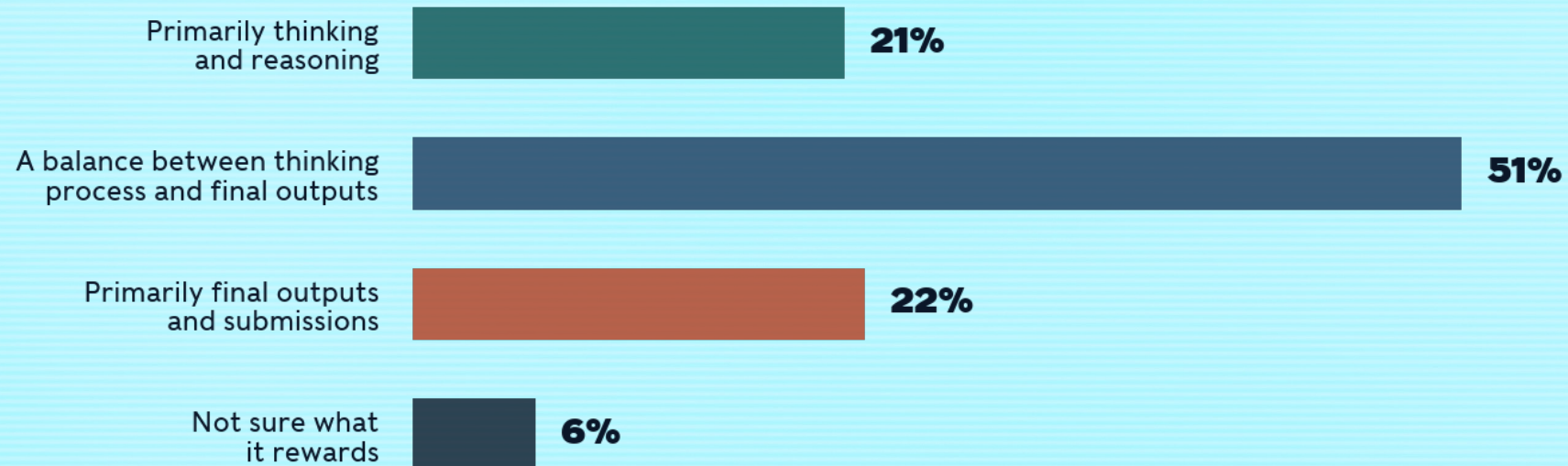
- It's not an absence of policy that's the problem, it's incoherence and inconsistency
- Policies treat AI use as exclusive to assessment
- The relationship between AI and learning differs fundamentally across creative arts, computing, healthcare, and humanities — shaped by professional identity, the nature of the knowledge, and ethical commitments to the field.
- I'll come back to policies later

Finding 3: Students know what genuine assessment should look like — and have designed alternatives

- Only 21% feel their course primarily rewards thinking and reasoning.
- 33% agreed they could get good grades without deeply understanding the material.
- 42% rate themselves as very confident learners and agree their grades do not reflect their actual knowledge.
- The credential and the competence have come apart for almost half the people in the room.

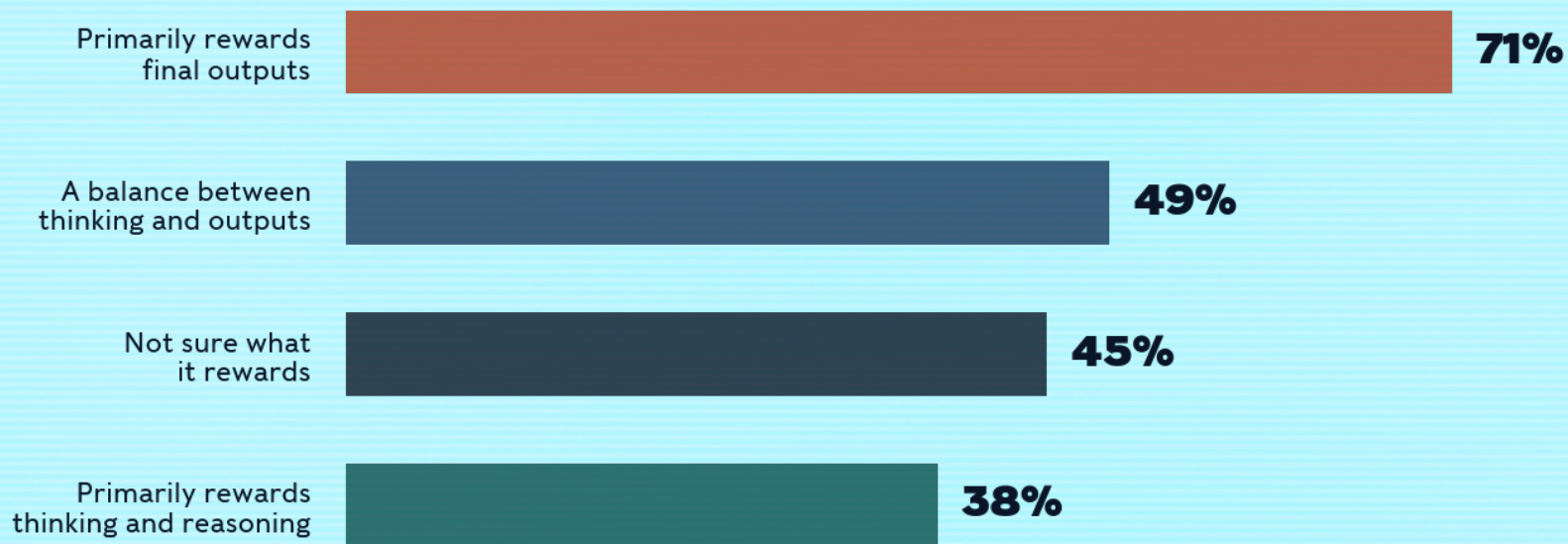
Only one in five students say their course primarily rewards thinking and reasoning

Students picked the single option closest to their experience.



Students who feel their course rewards outputs use AI at nearly double the rate

Per cent of students using AI for assessments, by what they say their course primarily rewards. The gap between thinking-rewarded and output-rewarded students is 33 percentage points.



The essay paradox — and what students want instead

- Essays: 91% have used them, 91.4% confident they show real learning.
- AI means you can produce an essay without understanding –rewards understanding when it's present but hard to detect when it's absent
- Group work scores lowest — not because collaboration is pointless, but because individual understanding becomes invisible.
- Interested in assessment that has visibility of individual understanding, application, accountability and is relevant – characteristics>format
- 59% of students worry AI could reduce their critical thinking. That is the majority view.

Finding 4: Visible accountability moments change how students use AI

- Finding 4: Visible accountability moments are disappearing without replacement, and students use AI very differently when they know accountability is coming.
- “In the back of my mind, I know in a few months I’m going to have to sit an exam. So I do need to actually study instead of just allowing AI to carry it for me.”

Finding 4: Visible accountability moments change how students use AI

- Future accountability moment, AI supports learning
- With no future accountability moment, it ends up replacing it – autopilot
- Students who know they will be tested later don't just avoid AI — they prompt more carefully, interrogate its answers, push on the reasoning.
- “I use AI completely differently depending on whether there's an exam at the end.” — Undergraduate, biomedical science
- Any course moving away from exams needs to answer what is replacing the accountability function, not just the format.

Accountability ≠ surveillance

- This is not an argument for more exams or surveillance
- Students reject assessment methods that can't reliably evidence individual learning (hence anxiety about group work)
- Students with social anxiety, depression or neurodivergent conditions want assessment with accountability with them designed in mind
- “I do have social anxiety and depression, so on some days I may not be as good at presenting. Both matter.”
- Proposed multiple low-stakes attempts, conversations>presentations, uncapped formative practice, peer explanation

Accountability ≠ surveillance

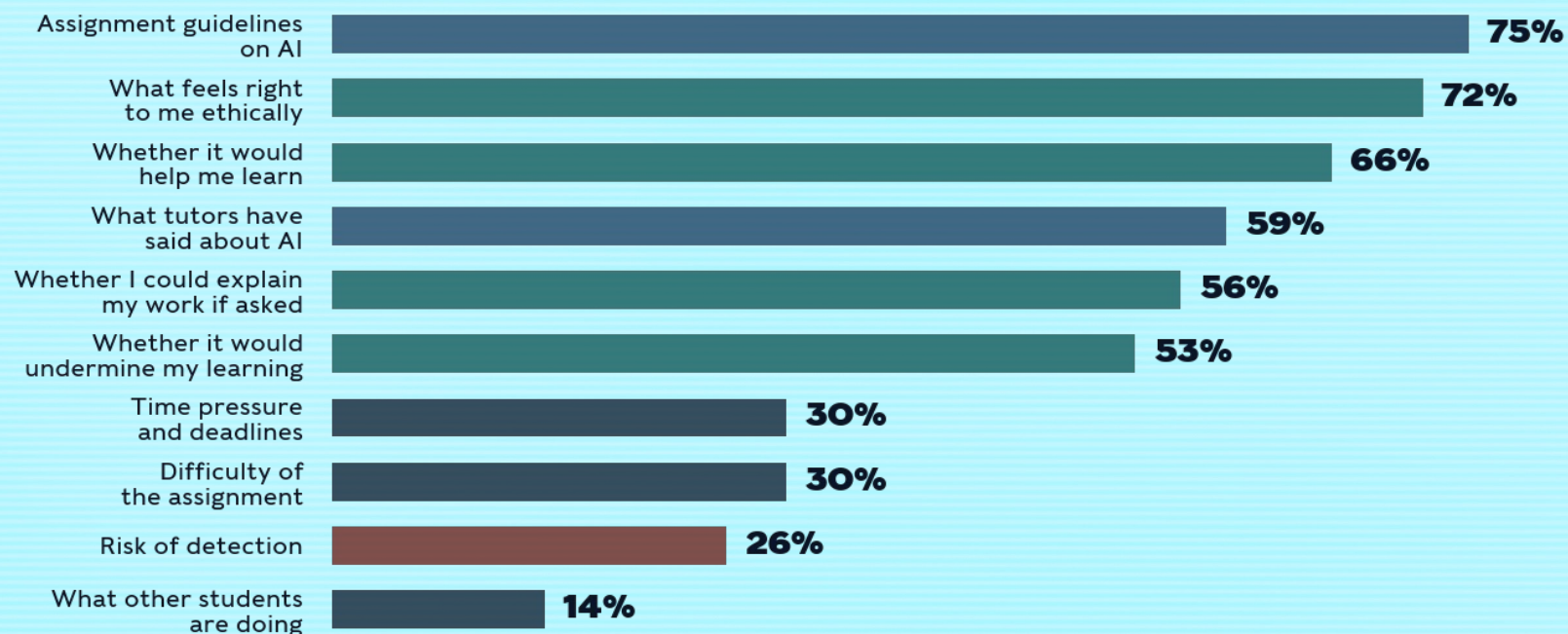
- The question isn't whether to build accountability moments. It's whether they feel like there's an opportunity to show off their learning or is it a trap.
- Oral exams track as having higher carer confidence too

Findings 6 and 7

- Finding 6: AI policy is present in almost every institution and functional in almost none — and AI declarations may be making things worse.
- Finding 7: Policy incoherence is a distributional justice problem that consistently punishes the most conscientious students — and the cost is emotional as well as academic.

Ethics and learning value dominate students' AI decisions — detection risk is near the bottom

Select all that apply. Among AI users only.



The circular referral — and the contradictions

- One student emailed her department about what was permitted. She was told to ask the academic integrity lead. She found the module was run by the academic integrity lead. She asked him, and was told to go and ask the academic integrity lead. She gave up and didn't use AI at all — staying up all night completing the assignment manually.
- “The lecturer will say use your brain, do everything yourself. One tutor will be like, I encourage you to use AI as a guide. Another lecturer will say don't use AI, do your research. They're not communicating with each other, and it's making our brains go crazy.” — Postgraduate taught

Finding 7: Policy incoherence punishes the most conscientious students

- The costs of unclear AI policy fall hardest on students most trying to comply. One student omitted a key element from their dissertation because they could not confirm AI transcription was permitted.
- 59% of students worry AI could reduce their critical thinking.
- The de facto norm is being set by the most risk-tolerant students and the most permissive lecturers. The policy burden falls entirely on the conscientious.
- Students are designing own personal ethical frameworks about how to use AI – often more detailed than any university AI policy.

Three types of student

**Student who doesn't
use AI at all**

*Terrified of academic
misconduct or
privacy/ethical
concerns
Doesn't get "caught"
but falls behind*

**Student who uses AI
badly**

*Busy, working,
additional
responsibilities
Gets "caught"*

**Student who uses AI
expertly**

*Access to premium
tools, uses it for
learning, not
production
Doesn't get "caught"*

Finding 8: Women are far less likely to use AI — and many carry anxiety without using it

- Gender gap on AI usage: more than 20 percentage points. The largest demographic difference in the entire dataset — larger than any difference by disability, socioeconomic background, level, or year of study.
- 46% of students worry not using AI puts them at a disadvantage.
- Among non-users carrying this anxiety: 74% are women, 53% are disabled.
- AI anxiety without AI adoption — the psychological costs of a considered choice to stay outside.

Finding 8: Women are far less likely to use AI — and many carry anxiety without using it

- The gender gap is the largest demographic difference in the dataset — more than 20 percentage points. 74% of non-users who worry about competitive disadvantage are women.
- “I have, and will never, use AI for assessments. The ability to think through a problem is a dying skill, exacerbated by overreliance on generative AI.” — Undergraduate, humanities
- These students have made a principled decision. Universities may need to both validate the choice and address the conditions creating the anxiety.

Finding 9: AI becomes a reasonable adjustment

- Students with dyslexia, ADHD, and related conditions describe AI as the most effective cognitive support they have encountered — often more useful than any formal university adjustment.
- “Now I use AI I actually understand my work more and would be able to recall it better. AI rephrasing things makes things stick in my brain better.” — Student with dyslexia
- AI use isn’t production assistance, it support learning
- Blanket AI restrictions risk removing the most effective support tool many disabled students have ever accessed.

Finding 13: Peer learning is a reliable route to genuine understanding

- Moments of real learning often involved fellow students, audiences, and staff-student communities
- “You could just go over and say, 'oh, that looks really cool, how did you make that?' and they're more than happy to explain it. It just builds friendship and communication and relationships.”
- Peer learning isn't enrichment, reliable generator of genuine understanding – builds belonging (= less AI use), solves the oracy assessment problem
- There is an equity issue with this informal knowledge – requires students to be well-connected, present and socially confident, this stuff needs resourcing

Finding 13: Peer learning is a reliable route to genuine understanding

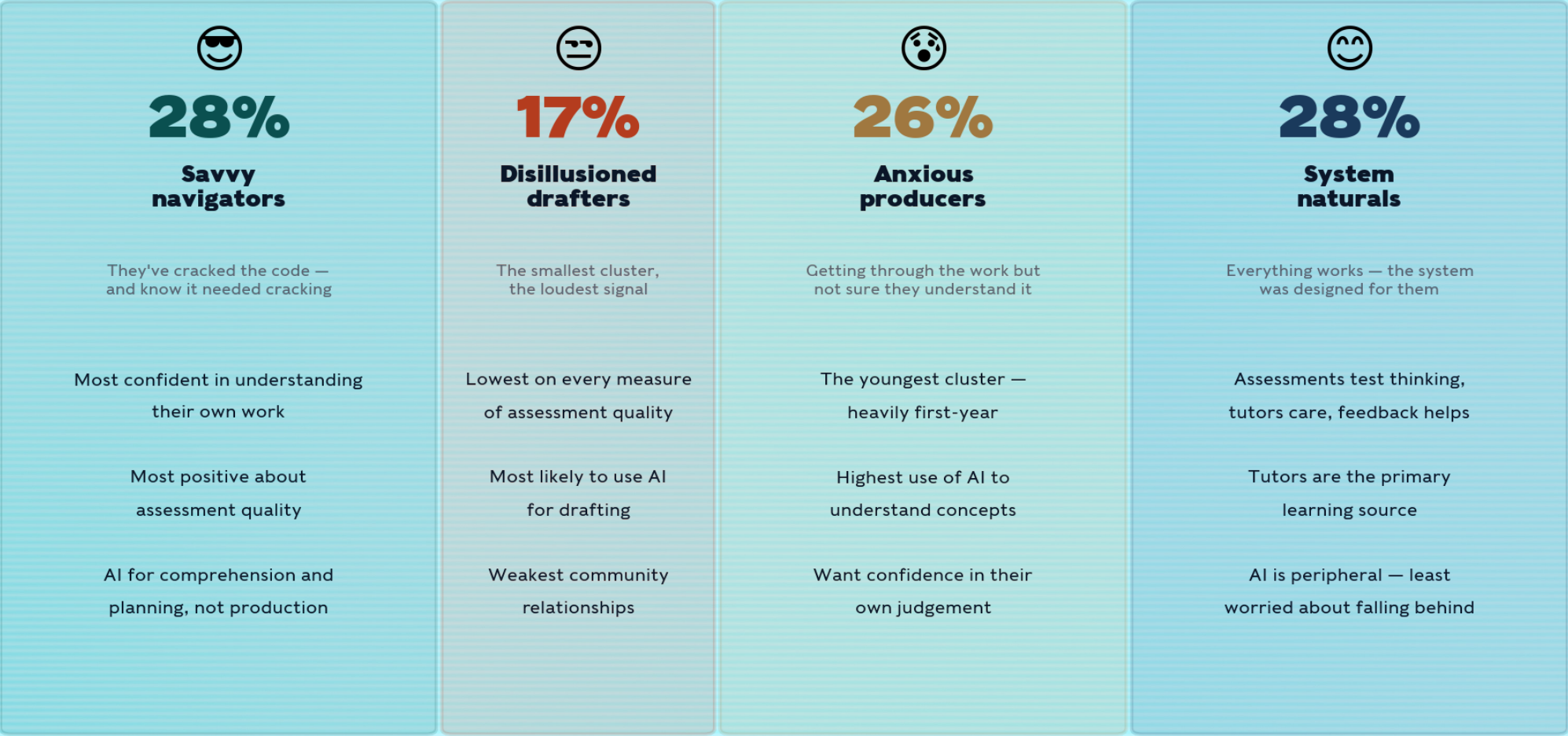
- A postgraduate art and design student described realising that you could feed the module handbook and a diary of your work progress into ChatGPT and produce a good portfolio submission.
- She shared this technique – "only to my close friends, because it wasn't discussed what you could and couldn't do."
- Knowledge circulates through trusted relationships, not official channels.
- If you have the channels, you have the hack, students who didn't were left assembling their portfolios the hard way.

Finding 15: Students who belong reach for AI less

- Belonging is one of the most powerful correlates of learning experience (belonging-criteria clarity $r = +0.54$)
- Among students who strongly disagree on belonging, only 33% do not use AI for assessments. Among those who strongly agree, 51% do not.
- “I feel like with my course it’s not so much about learning — but having the time to produce your work to the standard they expect, whether you understand it or not.” — Undergraduate, architecture
- The absence of resourced peer learning is a structural driver of the conditions that make AI adoption necessary.

Four distinct student populations

The same AI behaviour in two different clusters signals completely different things.



Recommendations

- For universities: Introduce verification moments into assessment. Replace AI declaration forms with stage-specific guidance. Audit what AI is compensating for. Formally address how disabled students use AI for cognitive support. Investigate the gender gap. Resource peer-assisted learning as core provision.
- For course teams: Produce module-level AI guidance specific to discipline and assessment type. Every module should answer why it belongs on the programme. Map prerequisite assumptions. Design at least one assessment moment per module where students must account for their work in person – returning to exams reintroduces equity problems. Create opportunities for students to share their ethical thinking around AI.

What needs to change

- One student arrived at university wanting to learn, received mediocre grades for understanding – they didn't want to use AI
- So concluded they were forced to use it and now gets good grades
- But they acknowledged that they cannot be certain they have learned anything
- In their view, their university trained them to stop learning in order to succeed
- No AI policy will fix that. Assessment design might.

What needs to change

- Students in the research can describe with precision when real learning happens and when it does not.
- They have built personal ethical positions around AI that are often more considered than the policies their universities have produced.
- They have designed alternatives to current assessment that would test understanding.
- Every single one of them, when asked whether explaining something to a peer felt intimidating or empowering, all said empowering.

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