CAL POLY AI DAY · STUDENT RESEARCH SHOWCASE

Rules Didn’t Change What Students Did — Purpose, Attitude, and Major Did

Six Lessons From a Crossover Study of AI Policy in an Asynchronous Course

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140 students surveyed · **6** colleges represented · **6** lessons learned

The study

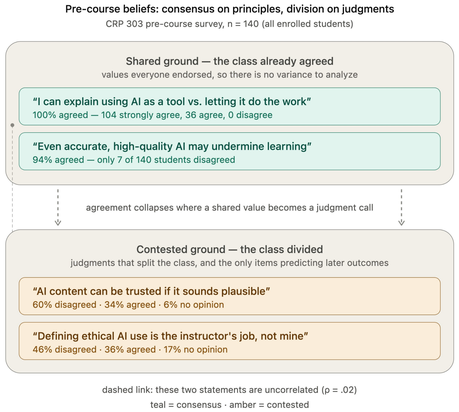
Students in an asynchronous course wrote every assignment inside Rumi, an AI writing platform, so AI use was logged rather than guessed.

- AI policy was set per assignment, so compliance became an observed behavior, not an honor-system question
- Each session logged prompts, writing speed, revision and originality, alongside weekly self-reports

CROSSOVER DESIGN

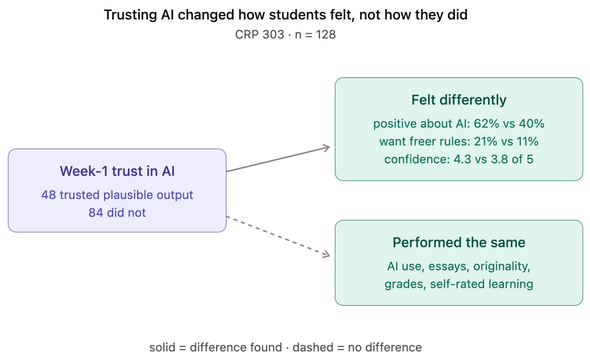
	Week 6	Week 8
Group 1	Permitted	Restricted
Group 2	Restricted	Permitted

1 Students agree on AI principles but split on judgment calls



- All 140 can tell a tool from a shortcut; **94%** say AI can undermine learning
- Yet a third would trust AI content because it sounds plausible

2 Who uses AI is a question of attitude, not ability



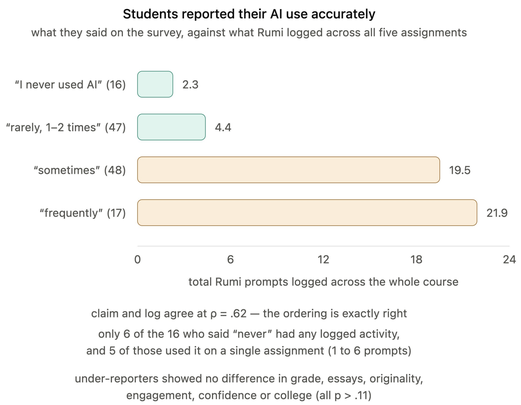
- Students who arrived trusting AI left more positive and more confident
- Their grades, essays and originality did not differ

3 Why students use AI matters more than how much



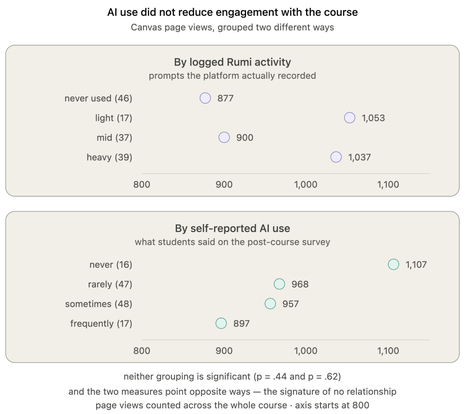
- Using AI to think brought the highest self-rated learning **(4.3 of 5)**
- Using it also to save time rated no higher than not using it

Can we trust what students told us?



Yes. Self-reports tracked the platform logs closely (ρ = .62).

4 AI use didn’t pull students away from the course



- No link between AI use and page views or participation, by logs or self-report
- Heavy users viewed more pages than non-users **(1,037 vs 877)**

5 Discipline shapes who picks up the tool, not who benefits

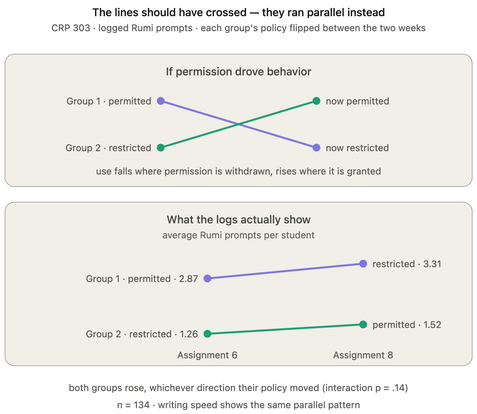
Thirty-six comparisons, three differences, all in one row
CRP 303 · post-course means by college · each college tested against the other five

	attitude after (1–5)	attitude change (±)	reported AI use (0–3)	perceived learning (1–5)	logged tool use (avg)	confidence in AI use (1–5)
Business (42)	3.55	+0.12	1.60	4.17	3.08	4.19
Architecture (22)	3.09 ▼	+0.36	1.09 ▽	4.00	0.56 ▽	3.14 ▽
Science & Math (18)	3.28	0.00 ▼	1.78 ▲	3.89	2.78	4.22 ▲
Agriculture (18)	3.39	+0.22	1.67	4.33 ▲	2.37	4.06
Liberal Arts (14)	3.21	+0.50	1.43	3.93	2.09	4.21
Engineering (14)	3.64 ▲	+0.64 ▲	1.50	3.71 ▼	3.36 ▲	3.86
All students (128)	**3.38**	**+0.26**	**1.52**	**4.05**	**2.43**	**3.96**

amber = below the other five colleges (p < .05) · every other cell: no difference
triangles mark the highest and lowest college in each column, significant or not
only logged tool use and confidence survive correction for multiple comparisons

- Attitude and perceived learning differ across six colleges
- CAED used AI least and was most skeptical, yet its perceived learning was not low

6 Announcing a policy didn’t change what students did



- Logged AI use rose for both groups, whichever way their policy moved
- Not even the heaviest users cut back **(5.74 prompts restricted vs 4.86 permitted)**

WHAT TO DO

Guide how students use AI, not just whether they may.

1. Teach verification and judgment
2. Don’t read heavy AI use as a warning sign
3. Shape the purpose of use, not the quantity
4. Probe why self-report and logs disagree
5. Read low adoption as a shared disciplinary attitude
6. If ownership is the goal, build the habit