

Enhancing Academic Writing with Generative AI: Implementation and Lessons Learned

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Concordia University Writing Centre

- Approximately 15-20 tutors per term
- Trained to help students improve academic writing
- French/English
- Online or in-person
- Socratic style tutoring to adhere to Concordia's Academic Code of Conduct
 - Unauthorized collaboration

New Feedback Service

- To keep up with demand and stay relevant
- Introduced Summer 2024
- Adapted from Dalhousie's Writing Centre
 - Student books Feedback service appointment
 - Student:
 - Sends assignment instructions
 - Sends draft
 - Fills in request form (areas of focus)
 - Thesis, organization, citations, grammar....
- Tutor spends 55 minutes to read and add tracker change comments

Development and Implementation of the Tool

- AI is being widely used by students to write for them, undercutting the development of writing skills.
- AI is very capable of helping students learn, but by default it is too helpful.
- Goal of the project was to develop an AI tool to assist human teachers and writing centre tutors to give useful feedback quickly.
- Meant to allow teachers and tutors more time for higher order feedback.
- Not meant to replace human feedback.

How it works

- <https://essaychecker.capyskills.com/>
- The user uploads their essay, and optionally the assignment instructions to the tool.
- Personally identifiable information is removed
- Writing is sent to openAI, and feedback is generated for each paragraph.
- Categories are
 - Sentence Length / Wordiness
 - Word Choice / Clarity
 - Grammar / Spelling / Punctuation
 - Paragraph Structure / Transitions
 - Citation / Referencing / Format
 - Relevance / Organization
 - Thesis / Argument Clarity
 - Tone / Academic Style
- Comments added to the essay and returned to the user
- OPTIONAL: Global feedback and next steps
- OPTIONAL: Interactive chat about feedback



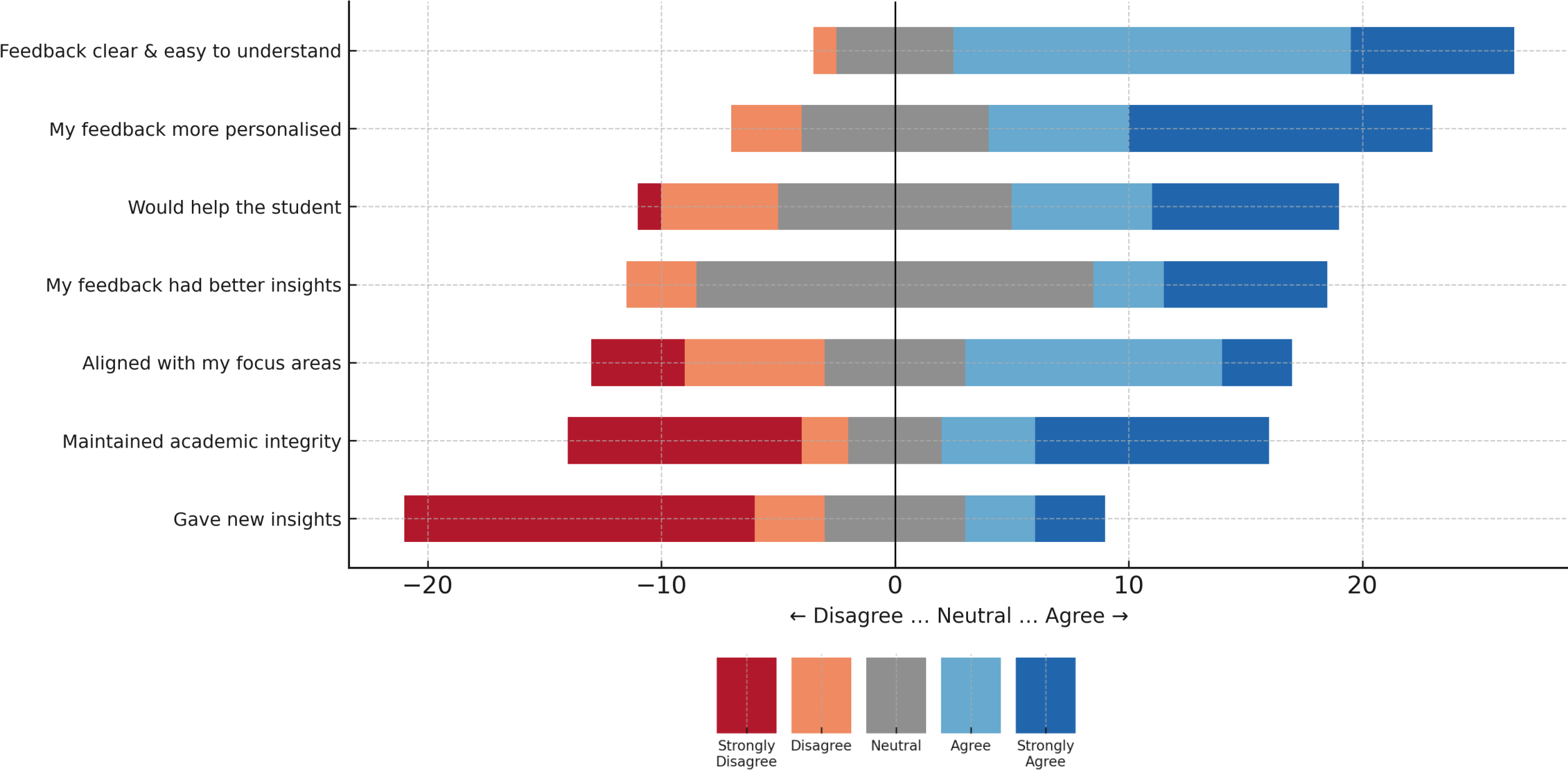
Refinement of the Tool

- Initially validated against my own comments (500 paragraph sample)
 - Capable of detecting deliberately introduced errors
 - Almost no contradictions
 - Different areas of focus.
- Initial comparison to Concordia Writing Centre Samples
 - More extensive feedback
 - Sometimes too vague
 - At first it was too helpful and violated unauthorized collaboration rules
 - Global feedback and interactive chat were too easy to violate unauthorized collaboration. Removed for Concordia
- Other teachers
 - Different areas of focus and preferences
 - Different standards for what constitutes "good" feedback
- There are multiple version of the tool for different use cases

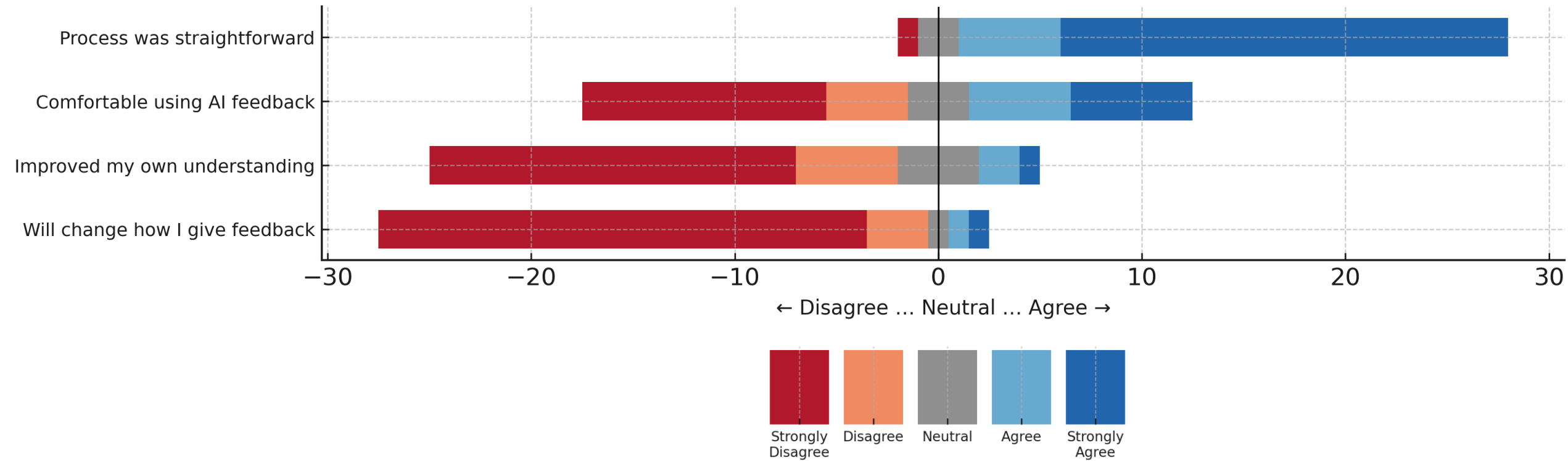
AI vs Writing Assistant Feedback

- We refined the feedback together bringing it closer in line to what the Concordia Writing Centre needs
- Asked Writing Assistants to compare their feedback on previous essays (n=30 essays) with the tool's outputs.

Feedback Quality & Integrity



Tutor Development & Future Use



Survey Findings: Human vs. Essay Checker Feedback

- Key Differences
 - AI fixates on 'long sentence' & citation issues; tutors flag deeper clarity & missing evidence
 - Tutors highlight thesis, structure & assignment compliance; AI often ignores global flaws
 - AI supplies rewritten sentences → academic-integrity concern; tutors guide without giving answers
 - AI feedback exhaustive, repetitive & formal; human feedback concise, student-specific, encouraging
- Areas of Alignment
 - Both catch basic grammar, spelling, and some transition issues

Survey Findings: Essay Checker – Strengths vs. Weaknesses

- Strengths
 - Encouraging, student-friendly tone
 - Accurate grammar, spelling & transition checks
 - Links to Concordia resources
 - Sometimes prompts thesis connection
- Weaknesses
 - Over-flags 'long' sentences; repetitive
 - Misses thesis/structure flaws
 - Feedback long, duplicative; overwhelms
 - Provides sentence rewrites (integrity risk)
 - Impersonal tone; confusing jargon; skips tables

Survey Findings: Is AI Feedback Enough Without Tutors?

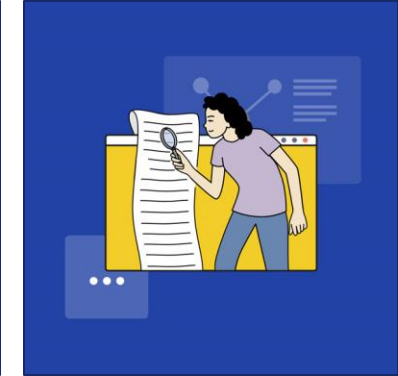
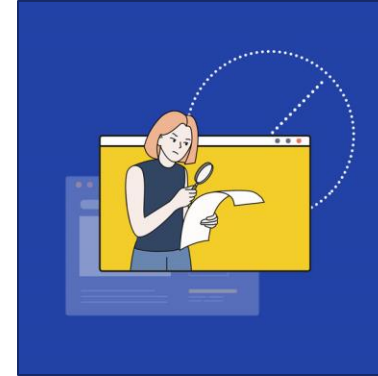
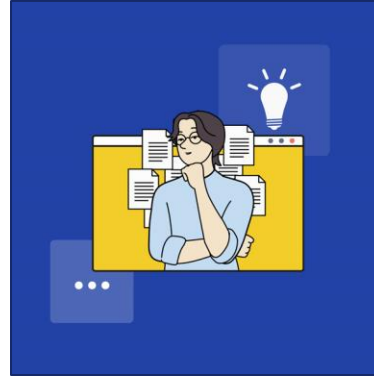
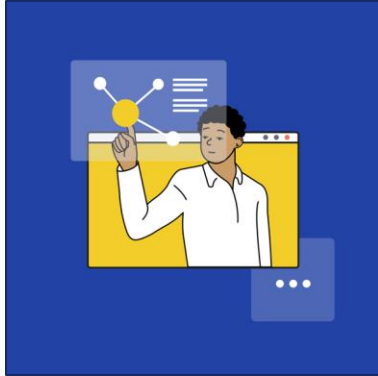
- Overall Verdict
 - ~80 %: 'Not yet' – AI alone insufficient
 - ≈20 %: Conditionally adequate
- Core Concerns
 - Misses big-picture thesis/structure issues
 - Lengthy feedback may lower confidence
 - Prescriptive rewrites breach pedagogy
 - Tone sometimes impersonal
- Preferred Model
 - Hybrid AI + tutor for clarity & ethics
 - Standalone use only on polished drafts

Next Steps

- Ongoing use by the community
- Integration of community feedback
- Shifting social context of AI use in schools
 - Fewer essays assigned overall
 - Concerns about making AI use seem permissible
 - Student / tutor concerns
- We are limited more by our social and institution contexts than AI capabilities themselves
- AI literacy for teachers and students

GenAI QuickStart for Students

Five modules, one purpose



- GenAI Tools - When, Which, How – Evaluating AI tools
- GenAI and Learning – Using AI as a learning aid
- GenAI and Academic Integrity – Avoiding pitfalls
- GenAI and Professors' Expectations – Understanding guidelines
- Using GenAI in Graduate Research – Ethical research use



Why It Matters

Empowering students to think critically with AI:

- Builds AI literacy and critical thinking
- Centers academic integrity
- Prepares students for the AI-driven future



Thank you!

- We love to collaborate!
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- Jennifer Banton
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- AI tool
<https://essaychecker.capyskills.com/>



Pôle interordres
de Montréal

