

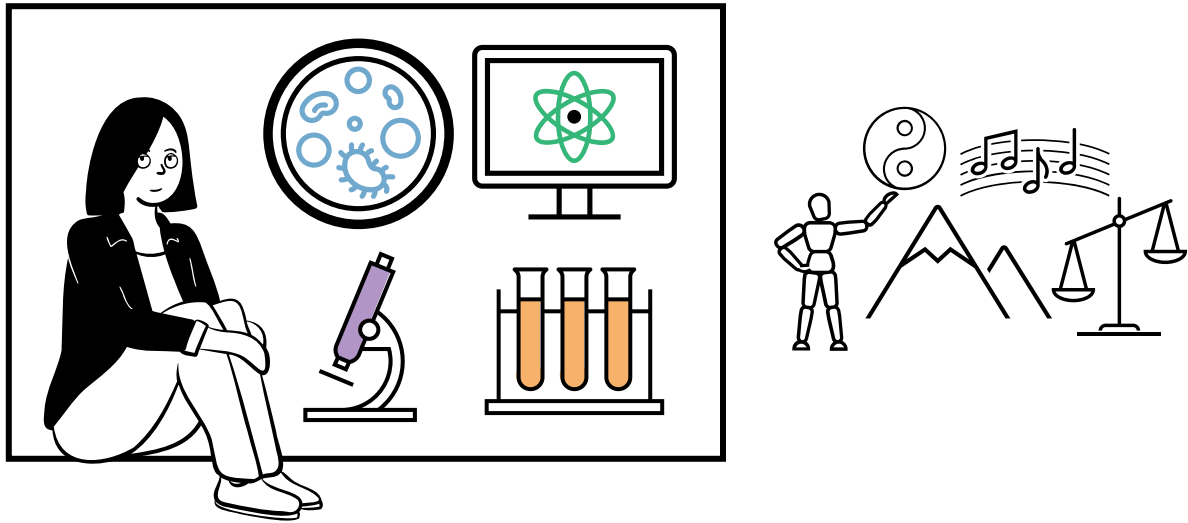
Deliberate teamwork, peer reviews and reflections can elucidate the interdisciplinary process



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The course - HS2195 Beyond the good and evil of drugs

Discipline(s)	Pharmaceutical sciences, sociology and others
Course Level	Undergraduate
# of Students	120
Type of course	Interdisciplinary course, IDC; CHS elective
Course goals	To develop interdisciplinary skills and knowledge in students



The issue

Insufficient interdisciplinary learning

- Limited interdisciplinary integration and nuanced thinking in assignments.
- Limited student engagement in collaboration and perspective-taking.

Why might this happen?

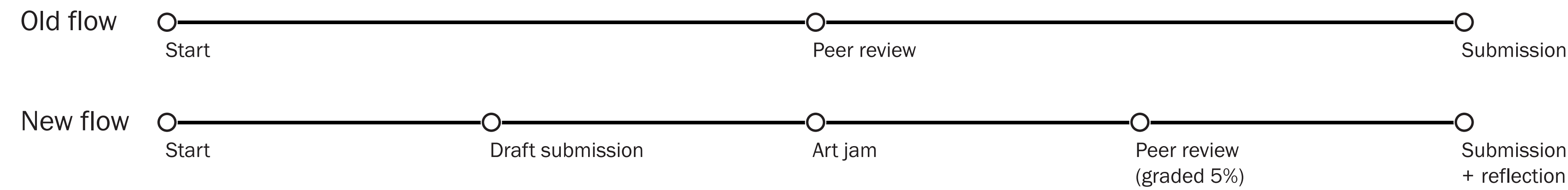
- Limited perceived value of mandatory IDCs.
- Bias toward perceived difficulty of other disciplines.
- Course structure has insufficient time and opportunities for collaboration.



Example of a student's multidisciplinary submission to the Picture-Caption/Concept Map CA.

The proposed solution

Dedicated time and space for skill development, collaboration and reflection



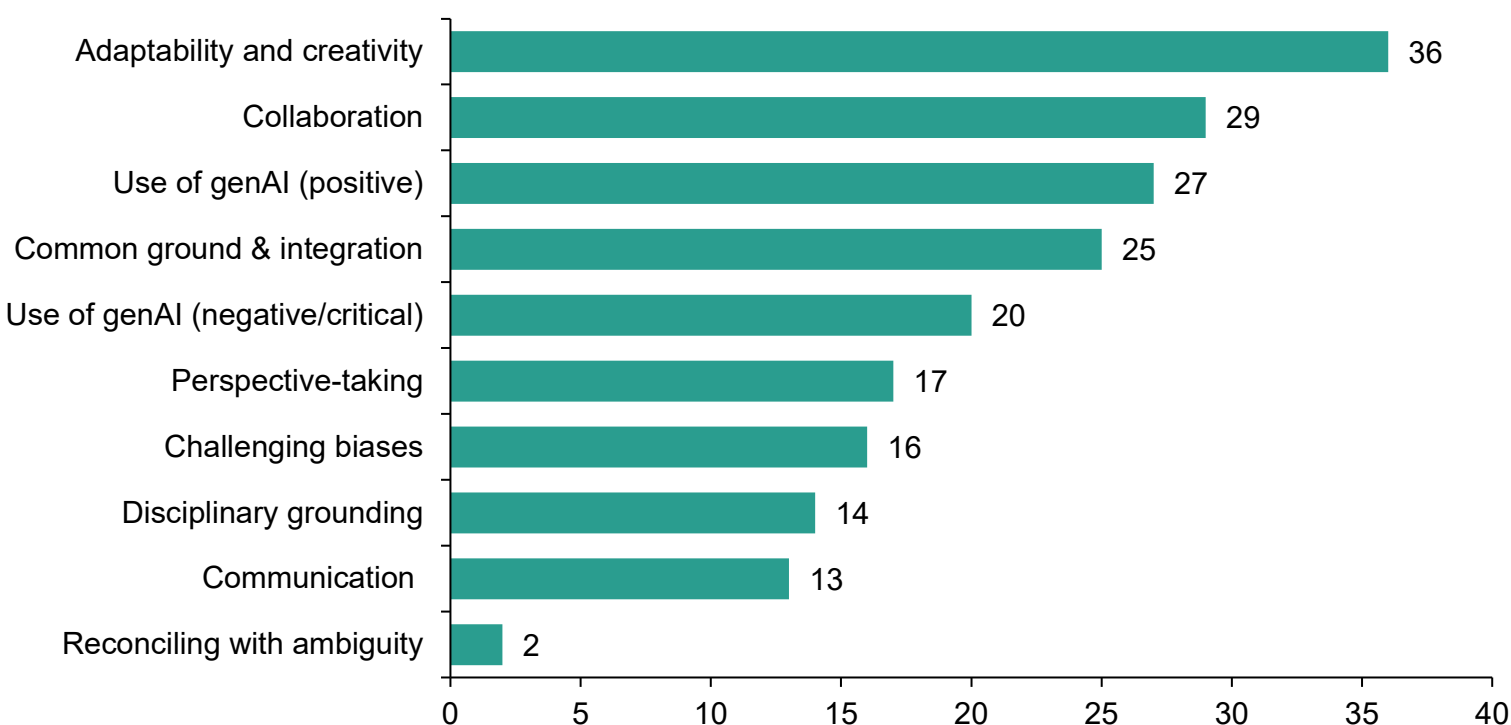
- Draft submission** encourages students to start earlier
- The art jam** session builds the confidence to create through practicing to observe and draw
- Peer review** incentivizes collaboration and perspective taking
- Reflections** prompt lucidity of the process

The results

Analyses of reflections

- Inductive & deductive analyses of 41 reflections

Deductive themes (1,2)	Inductive themes
Disciplinary grounding	Use of genAI (positive)
Perspective taking	Use of genAI (negative/critical)
Common ground & integration	Reconciling with ambiguity
Collaboration	Challenging biases
Communication	
Adaptability & creativity	

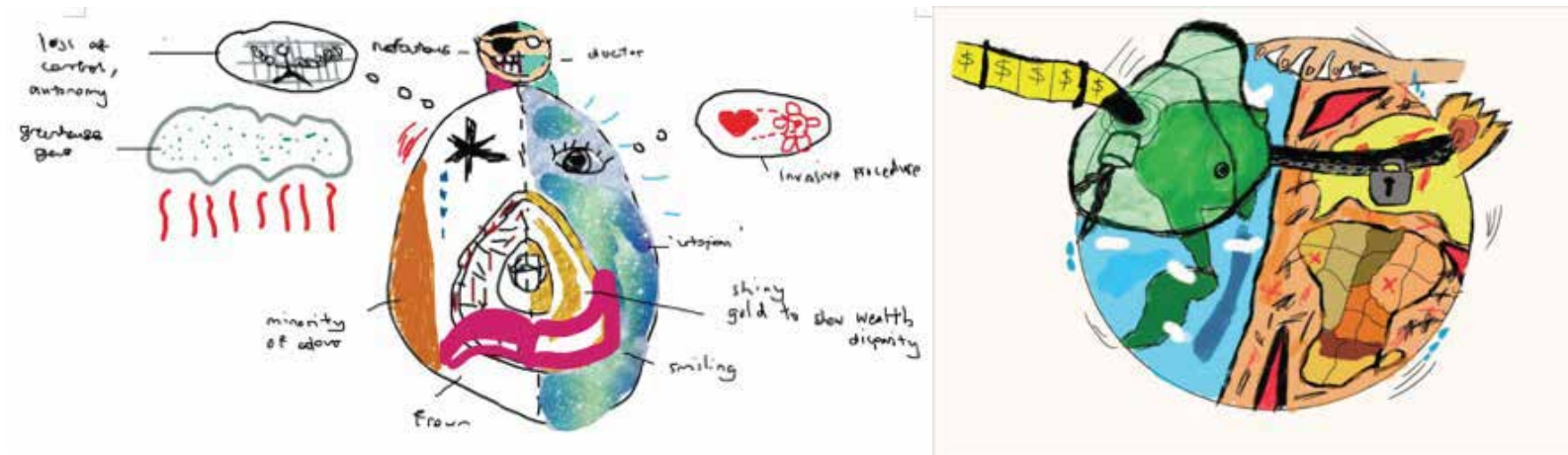


Prevalence of the themevs throughout the student reflections (n=41).
Each theme was counted for a maximum of 1 in each reflection.

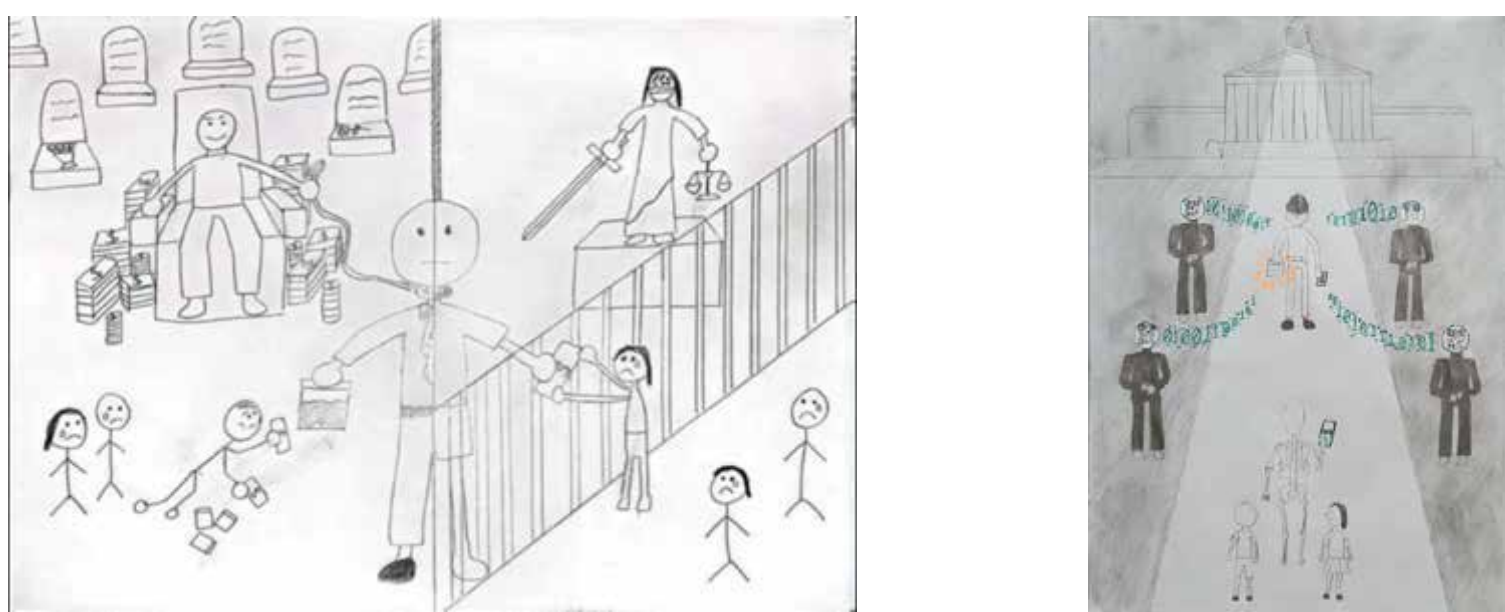
- Most students reported on their struggles and frustrations which they overcame through collaboration.
- genAI helped to provide a broad overview, however interdisciplinary links had to be synthesized by the students.

Selected examples that showed improvements

- Conscious Control



- Visible Bodies, Invisible Capital



Limitations & future

- Some students still showed limited interdisciplinaryity despite claiming to understand the process.
- More interdisciplinary modelling would be required.

References

- Boix Mansilla & Daves Duraising, Targeted Assessment of Students' Interdisciplinary Work: An Empirically Grounded Framework Proposed, J. High. Educ. , Vol. 78, No. 2 (2007)
- Newell, Interdisciplinary Curriculum Development, Issues in Integrative Studies No. 8, pp. 69-86 (1990).
- Wiegant, F., Utrecht University, Matrix with assessment rubrics of inter disciplinary learning goals & competencies (2020).
- Cartoon graphics sourced from Microsoft 365 Cartoon People collection, 2025

Acknowledgements

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