



UNIVERSITEIT  
GENT

# MASTERING THE MASTER'S DISSERTATION IN THE AGE OF GENERATIVE AI

Mansi Sharma | 18.12.2025

# THE MASTER'S DISSERTATION

“The master’s dissertation is a paper with which a master's degree is completed. In this way, a student demonstrates abilities to analyse, synthesize or independently problem-solve at an academic level or the ability for artistic creation. The paper reflects the student's general critical-reflective attitude or research attitude.” (Codex Hoger Onderwijs, Article I.3. 41° - tentative translation)

“Expressed in ECTS credits, the study load of a Master’s dissertation counts towards at least one-fifth of the total number of ECTS credits in the curriculum, with a minimum of 15 ECTS credits and a maximum of 30 ECTS credits.” EEC, 24-25

# COMPETENCIES THAT ARE FRONT AND CENTRE...

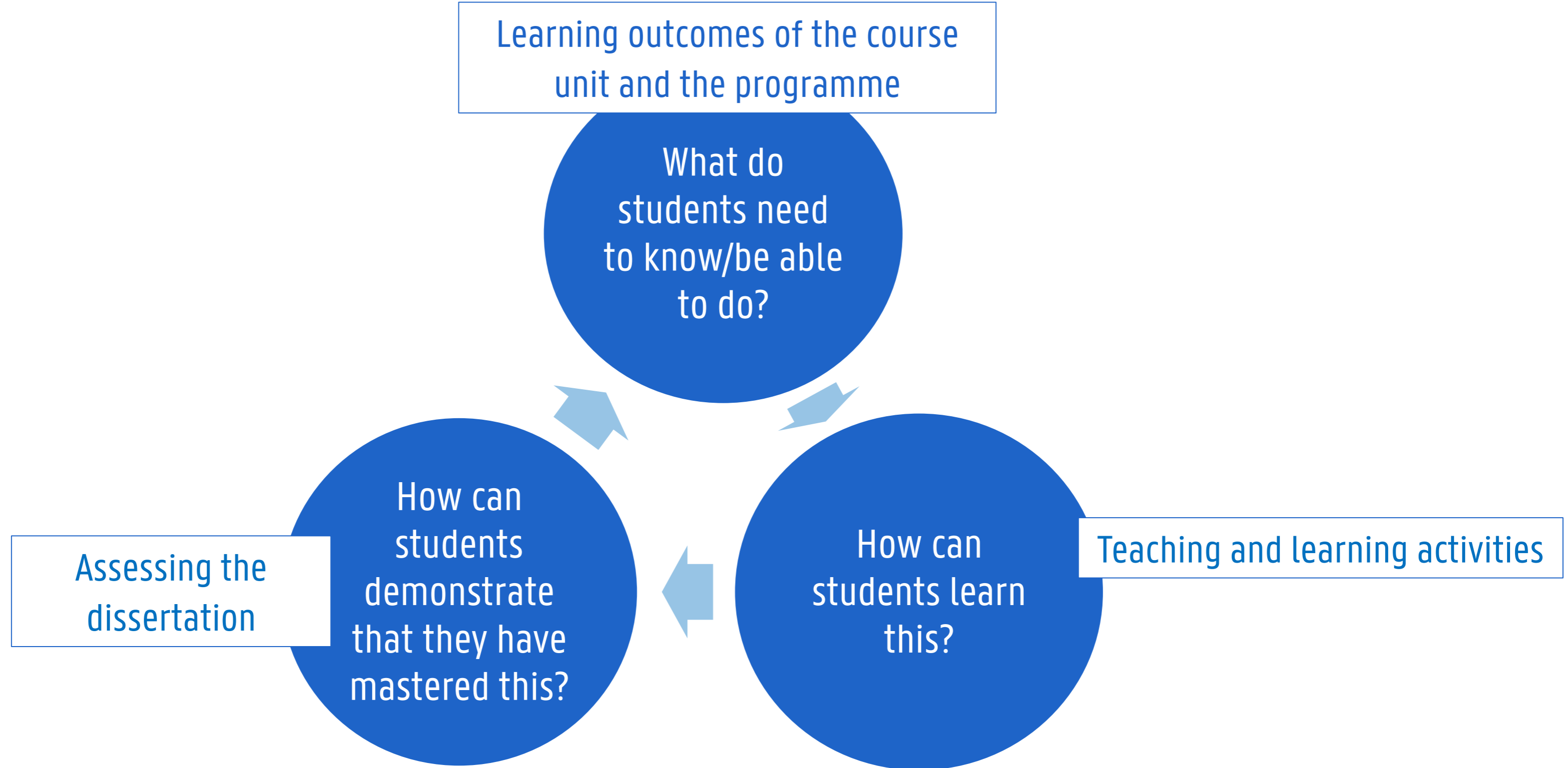
- Research skills

- Defining a problem statement/research question,
- Analyzing a problem based on sources,
- Choosing and designing an appropriate research method,
- Evaluating your own results,
- Identifying gaps in your research and suggesting further research,
- Conducting statistical analyses,
- Examining a situation/your own findings from different perspectives,
- Adopting and arguing for your own position,
- Conducting a critical literature review,
- Processing literature into your own synthesis,
- Integrating relevant course content, sources, etc.,
- Drawing conclusions based on the results found,
- Formulating advice based on critical analysis,
- ...

# OTHER COMPETENCIES THAT ARE IMPORTANT

- Research Skills
- Generic competencies
  - Critical thinking, acting ethically...
  - AI-competencies
  - Language competencies: writing, reading ...

# CONSTRUCTIVE ALIGNMENT, ALSO IN THE MASTER DISSERTATION



# AND WHAT ABOUT RESPONSIBLE USE OF AI?

- Responsibility and independent action
- Honesty and critical attitude
- Respectful use
- Careful and sustainable use
- Safe and confidential handling of information
- Leading by example

# GENERATIVE AI IN EDUCATION

## Ghent University policy

- ✓ AI use allowed in the master's dissertation
- ✓ AI use encouraged in other writing tasks
- ✗ AI use prohibited for specific tasks (if the teacher so decides)





## Useful links:

[Overall Information over AI in education](#)

[Extra information over AI in education in a Ufora course](#)

[Overall information AI in education for students](#)

### Visual Table of Contents ▼

 Module 0: Preface 2/2 Topics Completed ✓	 Module 1: Learn about (generative) artificial... 15/15 Topics Completed ✓
 Module 2: Learn about use of generative artificial... 6/6 Topics Completed ✓	 Module 3: Lifelong learning about (generative) artificial.. ✓

# SPECIAL CONSIDERATIONS (USE OF GEN AI):

Education Tips

[Read More](#)



1. **No tools are used to detect** the use of genAI in the master's dissertation
2. During the **defense**, it is checked whether the student has achieved **the final competencies**.
3. Programs that require students to be **transparent about their use of GenAI** in the master's dissertation follow **clear rules regarding the impact on scores**
4. Students who have used **GenAI irresponsibly** and therefore do not achieve the final competencies of the master's dissertation **cannot pass**.
5. Supervisors of **master's dissertations check during feedback moments** whether the student has personally completed all necessary steps to achieve the final competencies and has not replaced them with GenAI use.

# AI TOOLS:

THERE'S AN AI FOR THAT

## GENERAL



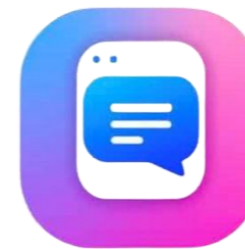
→ Log in met Ghent University -address



## RESEARCH



CHATPDF



## LANGUAGE (FORM)



# MASTER'S DISSERTATION (FINAL COMPETENCIES)

1. Advanced comprehension of and insight into the scientific knowledge related to the research discipline in general, and to the main subject of research in particular;
2. Ability to translate and annotate a primary source (target language);
3. Ability to analyze scientific texts related to the discipline studied;
4. Ability to synthesize scientific texts from within the discipline and/or integrate insights from those texts;
5. Ability to describe a relevant issue relating to an Oriental language or culture in a scientific way;
6. Ability to formulate adequate research questions relating to an Oriental language or culture;
7. Ability to independently apply research methods and techniques on an advanced level;
8. Ability to, be it under guidance of a promotor, independently contribute to the present scientific state of the field;
9. Ability to report scientifically about one's own research to the profession.
10. ...

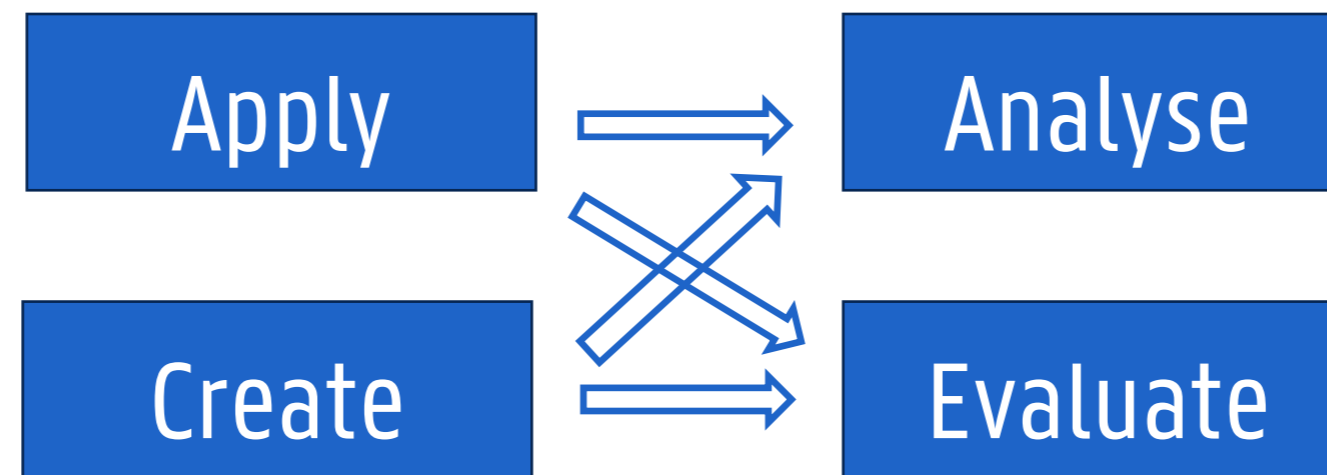
# SHIFTING COMPETENCIES

BLOOM'S TAXONOMY DIGITAL PLANNING VERBS					
REMEMBERING	UNDERSTANDING	APPLYING	ANALYZING	EVALUATING	CREATING
					
Copying Defining Finding Locating Quoting Listening Googling Repeating Retrieving Outlining Highlighting Memorizing Networking Searching Identifying Selecting Tabulating Duplicating Matching Bookmarking Bullet-pointing	Annotating Tweeting Associating Tagging Summarizing Relating Categorizing Paraphrasing Predicting Comparing Contrasting Commenting Journaling Interpreting Grouping Inferring Estimating Extending Gathering Exemplifying Expressing	Acting out Articulate Reenact Loading Choosing Determining Displaying Judging Executing Examining Implementing Sketching Experimenting Hacking Interviewing Painting Preparing Playing Integrating Presenting Charting	Calculating Categorizing Breaking Down Correlating Deconstructing Linking Mashing Mind-Mapping Organizing Appraising Advertising Dividing Deducing Distinguishing Illustrating Questioning Structuring Integrating Attributing Estimating Explaining	Arguing Validating Testing Scoring Assessing Criticizing Commenting Debating Defending Detecting Experimenting Grading Hypothesizing Measuring Moderating Posting Predicting Rating Reflecting Reviewing Editorializing	Blogging Building Animating Adapting Collaborating Composing Directing Devising Podcasting Wiki Building Writing Filming Programming Simulating Role Playing Solving Mixing Facilitating Managing Negotiating Leading

# DO COMPETENCIES SHIFT ACCORDING TO PROFICIENCY LEVEL?

“Ability to report scientifically about one's own research to the profession”

“Ability to formulate adequate research questions relating to an Oriental language or culture”



A.I. TURNS THIS SINGLE  
BULLET POINT INTO A  
LONG EMAIL I CAN  
PRETEND I WROTE.



A.I. MAKES A SINGLE  
BULLET POINT OUT OF  
THIS LONG EMAIL I CAN  
PRETEND I READ.

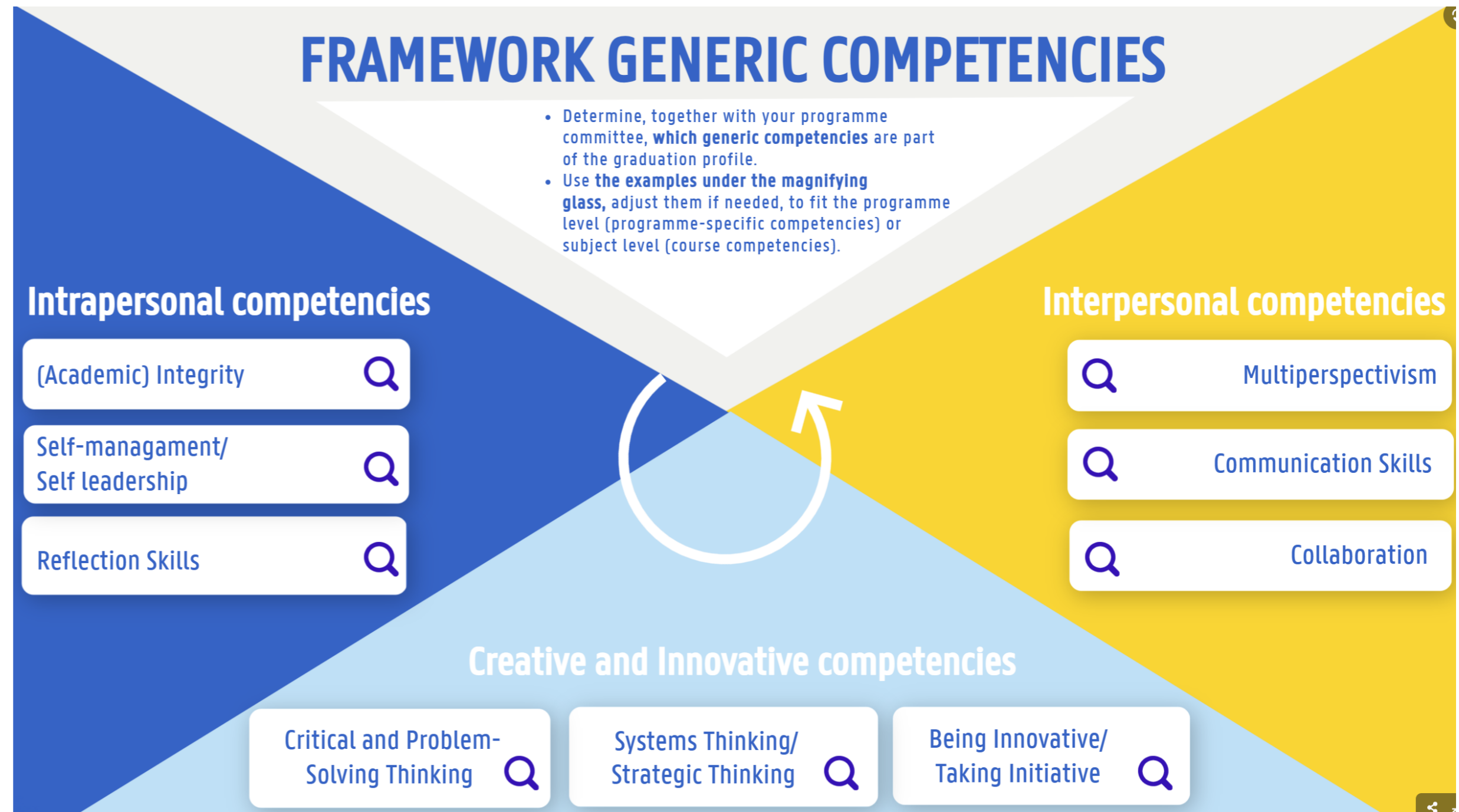


# DO SPECIFIC COMPETENCIES INCREASE IN IMPORTANCE?

Follow us for daily updates. [@aicouncillor](#)

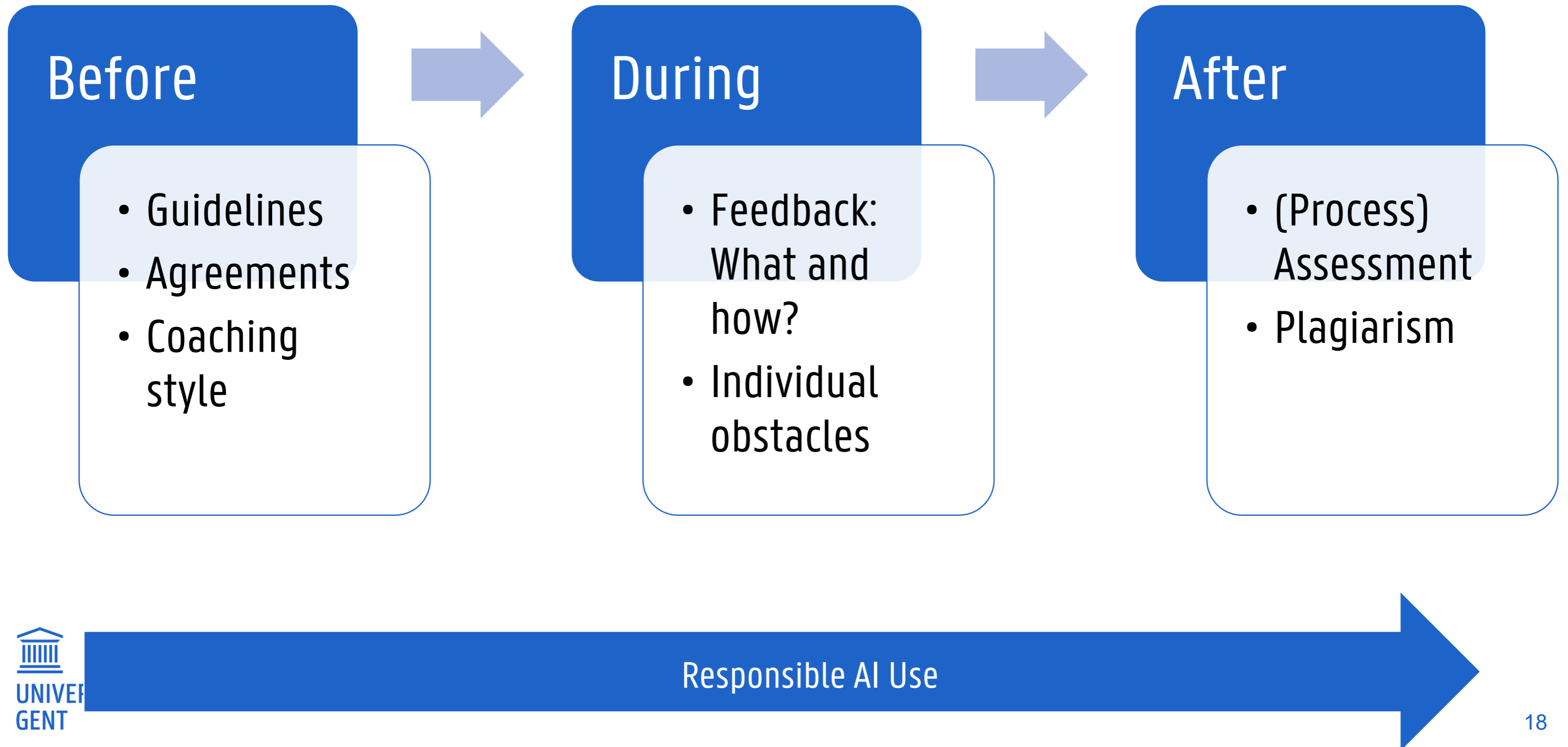


- Related to AI Usage
- Related to "new" forms of assessment through AI use



<https://onderwijstips.ugent.be/en/tips/generieke-competenties/>

# TODAY





# MASTER DISSERTATION SUPERVISION

# GUIDELINES FOR RESPONSIBLE USE OF AI

## GUIDELINES FOR THE RESPONSIBLE USE OF GENAI IN RELATION TO THE MASTER'S DISSERTATION

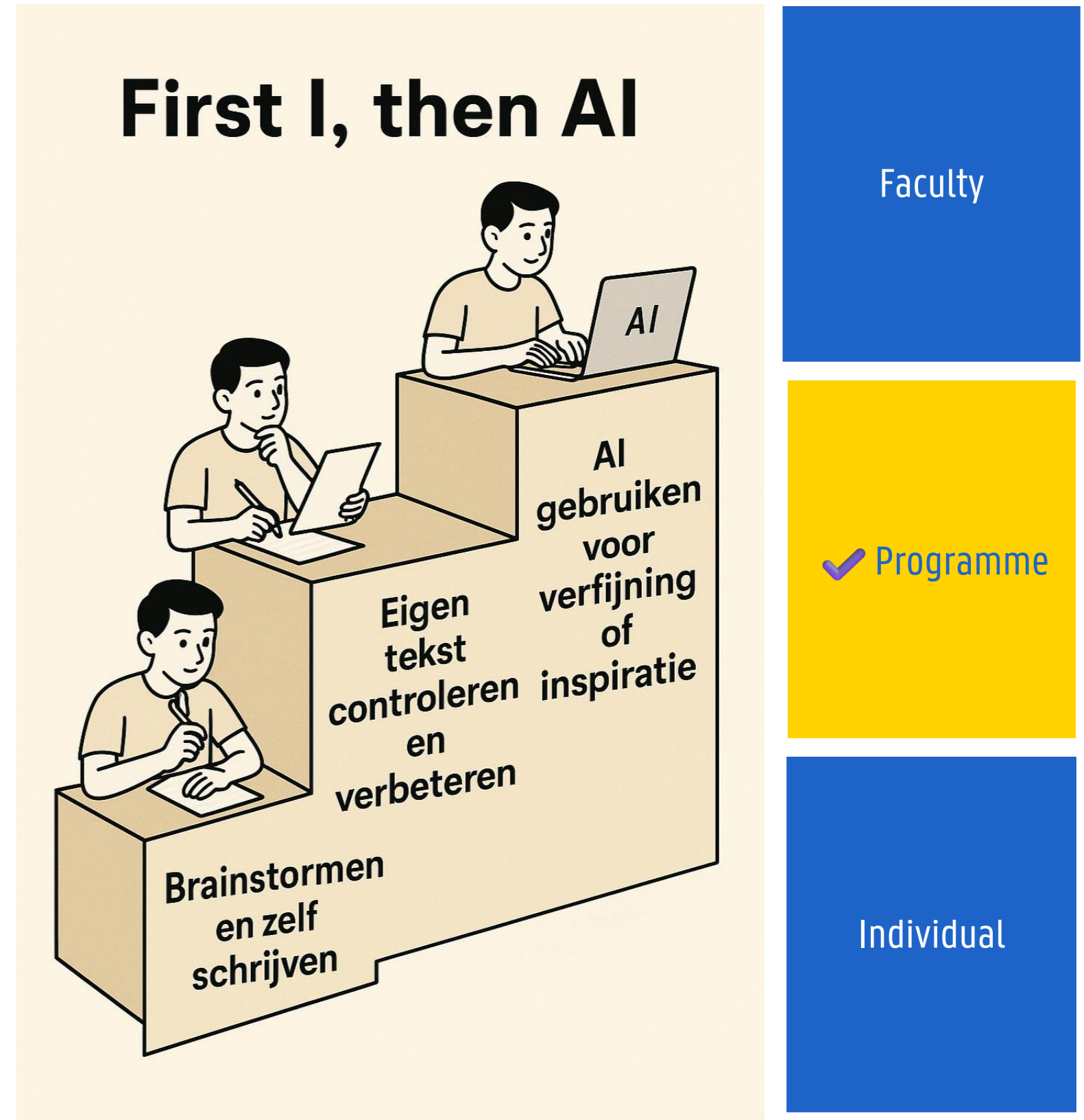
✓ Faculty

Programme

Individual

# GUIDELINES OF THE PROGRAMME

- Assessment criteria
- Formal agreements
- Agreements on AI use



Generating using Gemini, 5 February 2025

# INDIVIDUAL AGREEMENTS

Practical & content-linked

Make learning visible

	Conversation 1	Conversation 2	Conversation 3	Conversation 4
First Conversation: Research Question				
Literature Study				
Methodology				
Results				

Faculty

Programme

✓ Individual

“First I, then AI”?

To score or not? Decision of the programme

# YOUR COACHING STYLE

Ufora Course

[Read More](#)





# MASTER DISSERTATION SUPERVISION

# FEED-UP

Where am I going?



**FOCUS ON**

the future

the (learning) objectives

expectations

what is considered an  
excellent achievement

possible outcomes

# FEEDBACK

How am I getting there?



**FOCUS ON**

the past

students' achievements

what went (less) well

past mistakes

# FEED-FORWARD

What is the next step?



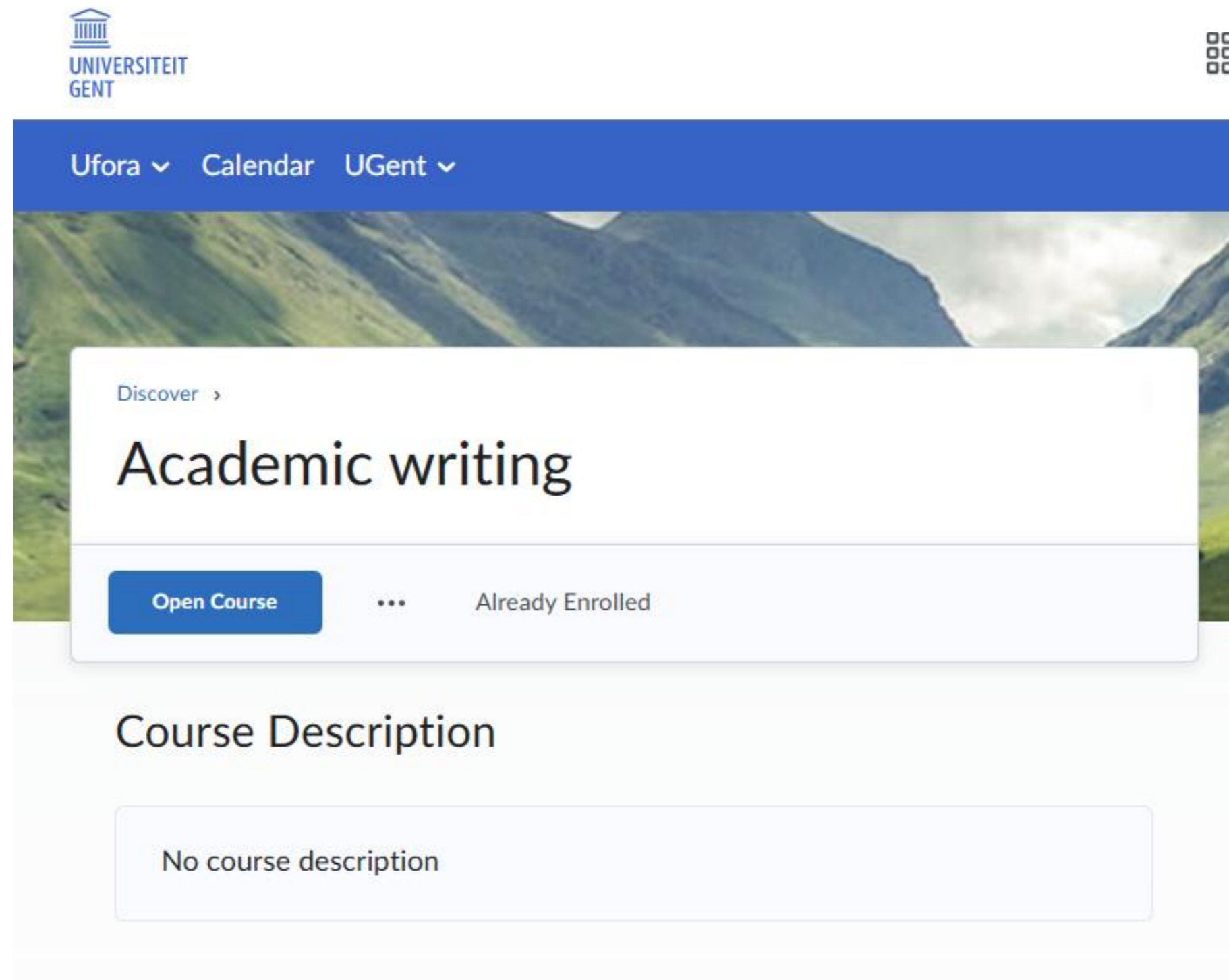
**FOCUS ON**

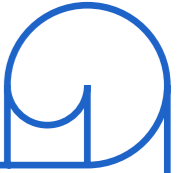
the future

possible next steps

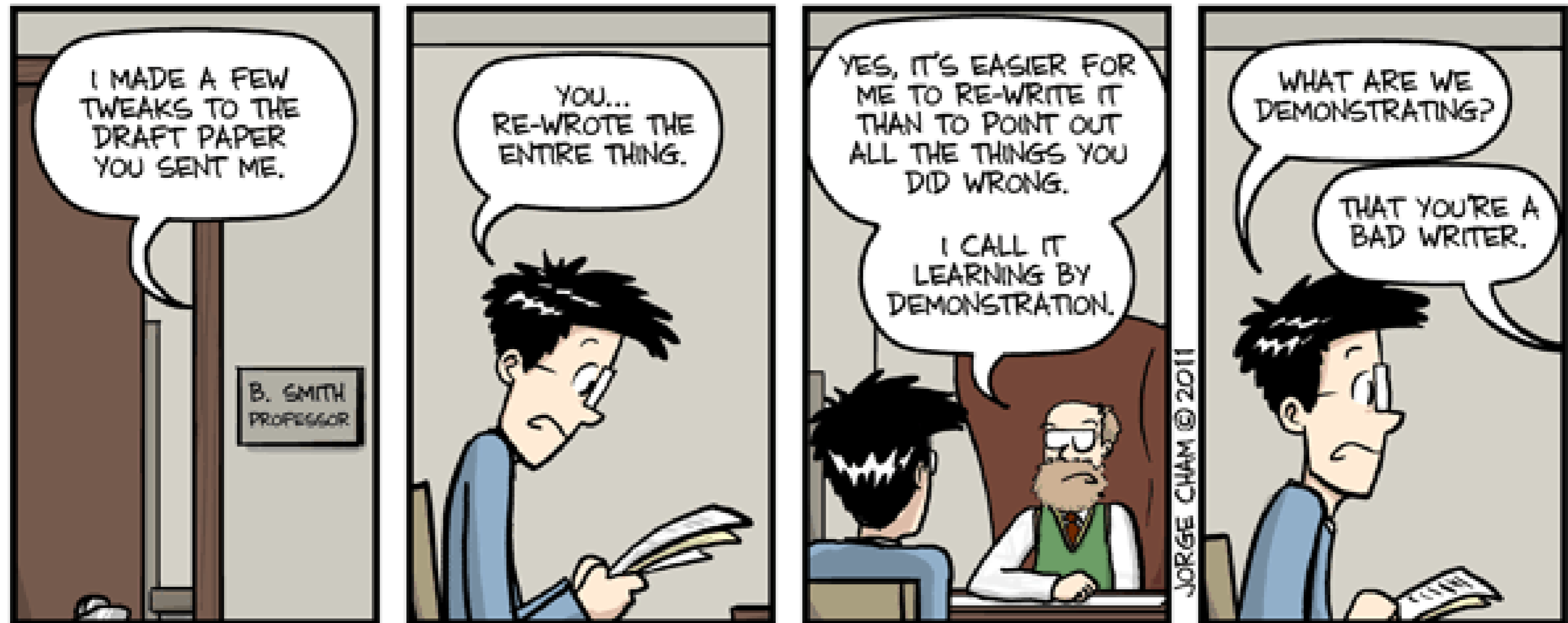
how to improve

# FEED-UP: GENERAL WRITING TIPS





"I supervise many master's dissertation students and feel that I have to give the same feedback to many. So this academic year, I have drawn up a list of common 'mistakes', in an attempt to prevent students from making them again."



WWW.PHDCOMICS.COM

Never rewrite yourself!



# WHAT KIND OF FEEDBACK?

- Content
- Form
- UGent- Writing Guide, [schrijven.ugent.be](https://schrijven.ugent.be) (FLW)

(to open the link above you must be registered in the [Ufora-learning path Academic Writing](#))

## Ghent University – Academic writing checklist

Content		Desirable features
1. Information is complete and accurate	<input type="checkbox"/>	1.1 <input type="checkbox"/> <a href="#">Well-focussed subject</a> 1.2 <input type="checkbox"/> In-depth and sophisticated/mult-perspective explanation 1.3 <input type="checkbox"/> Relevant details only
2. Clear and credible argumentation	<input type="checkbox"/>	2.1 <input type="checkbox"/> <a href="#">All steps in reasoning are included.</a> 2.2 <input type="checkbox"/> <a href="#">Sound and sufficient argumentation is included.</a>
Structure		Desirable features
3. The paper is complete	<input type="checkbox"/>	<input type="checkbox"/> The paper contains: foreword, abstract, table of contents, introduction, corpus, conclusions, list of abbreviations, appendices, reference list, etc.
4. The text has a logical structure	<input type="checkbox"/>	4.1 <input type="checkbox"/> The text takes the reader from one clear idea to the next. 4.2 <input type="checkbox"/> Repetition is used for emphasis and clarity only.
5. The introduction is well-structured	<input type="checkbox"/>	<input type="checkbox"/> <a href="#">Introduction includes: context, scientific motivation, (clear) research question, survey of what will follow</a>
6. The main body of the text is well-structured	<input type="checkbox"/>	<input type="checkbox"/> <a href="#">Chapters/sections are of similar length.</a>
7. The conclusion is well-structured	<input type="checkbox"/>	7.1 <input type="checkbox"/> <a href="#">There is no new information in the conclusion.</a> 7.2 <input type="checkbox"/> <a href="#">Research question is effectively answered.</a>
8. Titles are clear and well-chosen	<input type="checkbox"/>	8.1 <input type="checkbox"/> <a href="#">Labelling of sections is clear and well-defined.</a> 8.2 <input type="checkbox"/> <a href="#">Sufficient/clear section titles</a> 8.3 <input type="checkbox"/> <a href="#">Section titles are concise.</a> 8.4 <input type="checkbox"/> <a href="#">Consistent wording in section titles (either questions or statements or terms or quotes etc.)</a>
9. Correct and useful appendices. Relevant and clear visual support (tables, graphs, photos, illustrations...)	<input type="checkbox"/>	9.1 <input type="checkbox"/> Reference(s) to the appendix/ces in core text 9.2 <input type="checkbox"/> <a href="#">Essential information is in the core text; non-essential (illustrative) material in the appendix/ces.</a> 9.3 <input type="checkbox"/> <a href="#">Visual support leads to better understanding of the text and is sufficiently explained in the text.</a>
10. The structure of chapter sections and paragraphs is sound	<input type="checkbox"/>	10.1 <input type="checkbox"/> <a href="#">Information is described in a balanced manner in chapters, sections and paragraphs.</a> 10.2 <input type="checkbox"/> <a href="#">Each paragraph has only one core idea.</a> 10.3 <input type="checkbox"/> <a href="#">Each paragraph has a topic sentence.</a> 10.4 <input type="checkbox"/> Structuring paragraphs are used at the beginning and end of larger units of text (section, chapter).
11. The internal structure of the text is marked by structure indicators (= signposts, signal words, referring words, linking sentences/paragraphs)	<input type="checkbox"/>	11.1 <input type="checkbox"/> <a href="#">Strong cohesion between sentences/paragraphs</a> 11.2 <input type="checkbox"/> <a href="#">Good signposting and referring words</a>
Style		Desirable features
12. The text strikes a balance between difficult and simplistic language use	<input type="checkbox"/>	12.1 <input type="checkbox"/> <a href="#">Language is formal without employing stiff, archaic or officialese phrases.</a> 12.2 <input type="checkbox"/> Sentences are of appropriate length with finite verb forms.

		12.3 <input type="checkbox"/> No words are missing. 12.4 <input type="checkbox"/> Sentences strike a balance between too short and too long. 12.5 <input type="checkbox"/> Sentences strike a balance between difficult and simplistic. 12.6 <input type="checkbox"/> Passives can be used and so can impersonal constructions. 12.7 <input type="checkbox"/> The style strikes a balance between too cumbersome and too simplistic.
13. <a href="#">Ideas are expressed clearly with precise wording.</a>	<input type="checkbox"/>	13.1 <input type="checkbox"/> Technical terms are explained and used appropriately. 13.2 <input type="checkbox"/> Vocabulary is appropriate, avoiding vague words. 13.3 <input type="checkbox"/> Language is academic, avoiding inappropriate tentativeness.
14. The information density is distributed evenly over the text.	<input type="checkbox"/>	14.1 <input type="checkbox"/> Complex ideas are expressed clearly. 14.2 <input type="checkbox"/> The text strikes a balance between unwieldy and too concise.
15. <a href="#">The style is elegant yet academic.</a>	<input type="checkbox"/>	15.1 <input type="checkbox"/> The style is varied with a rich vocabulary and a variety of sentence constructions. 15.2 <input type="checkbox"/> The style is appropriate, avoiding storytelling and inappropriate imagery/expressions.
16. The text addresses the reader impersonally and consistently.	<input type="checkbox"/>	16.1 <input type="checkbox"/> The text avoids conversational language. 16.2 <input type="checkbox"/> The tone is objective and nuanced. 16.3 <input type="checkbox"/> The style is consistent.
<b>Mechanics</b>		<b>Desirable features</b>
17. The text is correct and follows the rules of spelling and grammar.	<input type="checkbox"/>	17.1 <input type="checkbox"/> All words are correctly spelled. 17.2 <input type="checkbox"/> Appropriate punctuation, correct and consistent capitalization 17.3 <input type="checkbox"/> Consistent and correct use of tenses 17.4 <input type="checkbox"/> Correct concord, correct reference words, correct word order etc. (grammar) 17.5 <input type="checkbox"/> Idiomatic collocations, expressions, prepositions etc.
<b>Reference</b>		<b>Desirable features</b>
18. The content of the text is well-supported by academic literature.	<input type="checkbox"/>	18.1 <input type="checkbox"/> Sufficient sources, recent sources, relevant sources 18.2 <input type="checkbox"/> Academic sources 18.3 <input type="checkbox"/> Sources appropriately incorporated into the text, adequate and acceptable translations from sources (citations vs paraphrases) 18.4 <input type="checkbox"/> Critical attitude towards sources 18.5 <input type="checkbox"/> No plagiarism
<b>Layout</b>		<b>Desirable features</b>
19. The layout is attractive and consistent.	<input type="checkbox"/>	19.1 <input type="checkbox"/> Correct and consistent in-text referencing 19.2 <input type="checkbox"/> Correct and consistent lay-out of the bibliography 19.3 <input type="checkbox"/> Consistent use of (interlinear) spacing, italics, quotation marks, abbreviations etc. 19.4 <input type="checkbox"/> Layout conform to the style sheet used by the university programme. 19.5 <input type="checkbox"/> Figures have captions and in-text references.

- Supervisor as critical reader: coach who guides the student through questions - E.g. "I read here ... and by that I mean ... Is that right?"
- Higher-order skills (structuring, arguing, etc.)
- Responsibility and ownership with the student

### Comments:

What about language form?

What about your duty as an expert?



# DID THIS STUDENT USE GENERATIVE AI?

“In the theoretical framework, various key sources have been cited that contribute to the rich collection of insights into academic writing and related domains. Each of these resources provides valuable perspectives and research findings that form the basis for the research conducted in this master's thesis. The integration of this multifaceted literature has laid a foundation for research that focuses not only on improving students' writing skills, but also on cultivating a deeper understanding of the complexity and richness of the academic writing process. This master's thesis aims to contribute to pedagogical practice by shedding light on effective strategies and approaches that can facilitate and support the development of academic writing skills, with the ultimate goal of strengthening the academic competencies and integrity of future generations of students.”

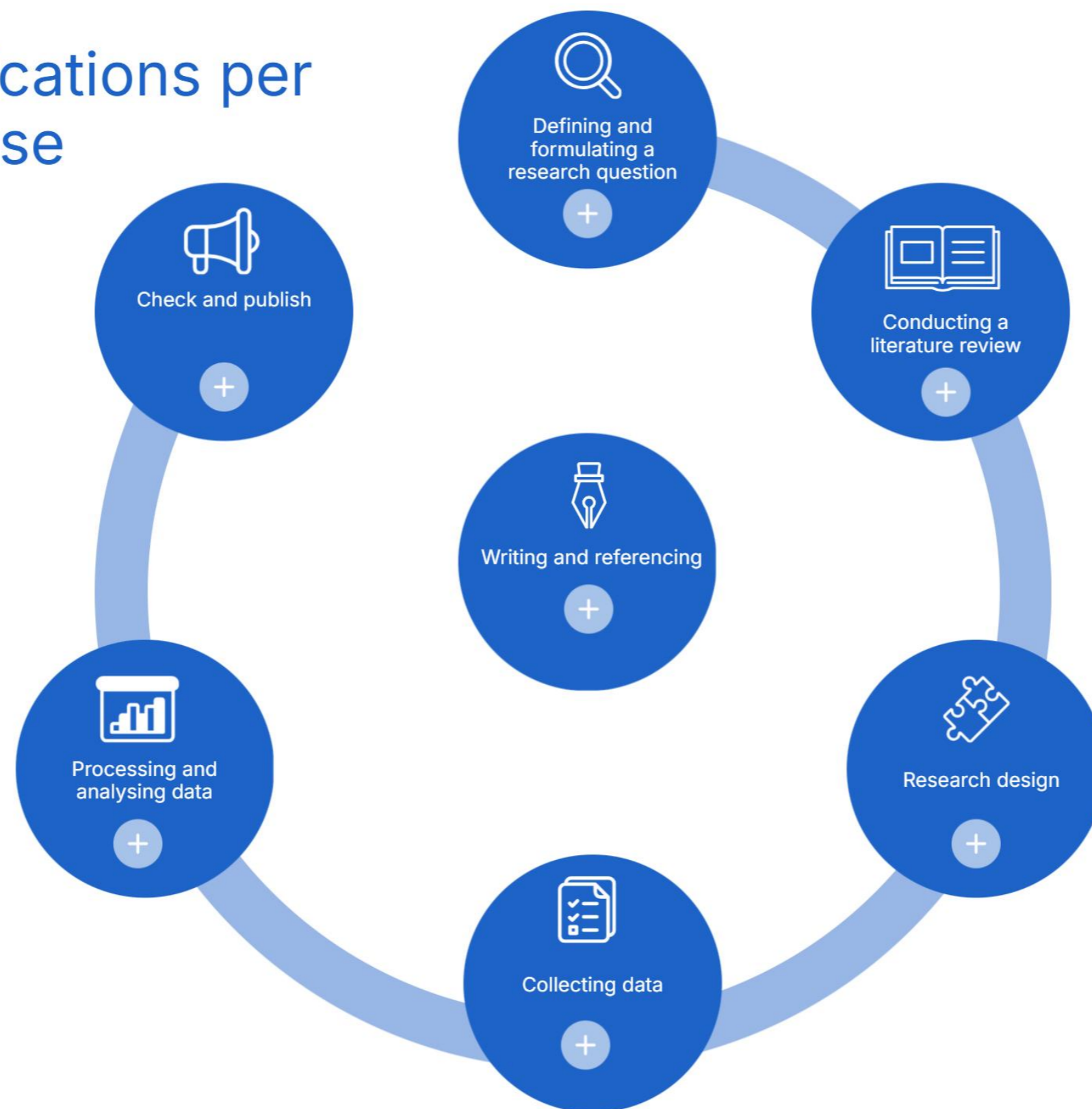


# FEEDBACK ON THE USE OF GENAI

- Expressing suspicion
- Falling back on final competencies
- Suppose "use a correct academic register"
- Sample questions:
  - Have you used an AI tool? Which tool? Why?
  - Is this paragraph an example of a correct academic register? Why?
  - What does the phrase "cultivating a deeper understanding of the complexity and richness of the writing process" mean?

# RESEARCHING WITH AI

(Gen)AI applications per  
research phase



Ufora Course

[Read More](#)



# EXAMPLE QUESTIONS AI USE

- Which AI tools did you use during your master's thesis, and for what exactly?
- Why did you choose an AI tool?
- Why did you choose these specific tools and not alternatives?
- How did you verify that the AI's output was correct, complete, and reliable?
- Have you modified or rewritten AI-generated texts or code? Why (not)?
- Can you explain how a certain AI model (e.g. ChatGPT or Midjourney) works and what its limitations are?
- How did you deal with possible biases or ethical risks of the AI tools used?
- How did you avoid plagiarism or inappropriate reliance on AI?
- Have you compared AI output to other sources or human input? What were the differences?
- How would you estimate the reliability of your results if you had left out AI tools?
- What have you learned about using AI tools in academic work, and what would you do differently next time?

# Activate your student



## ONDERWIJSTIPS

TIPS A-Z UGENT-PRAKTIJKEN ONDERSTEUNINGSAANBOD STUDIEMATERIALEN WIE ZIJN WIJ?

## Gebruik onze studiematerialen

Onderwijsondersteuning voorziet een aantal studiematerialen die lesgevers kunnen integreren in hun onderwijs. Wil je als verantwoordelijk lesgever met dit lesmateriaal aan de slag gaan in een opleidingsonderdeel, vergeet dan niet dat je als lesgever uiteraard deel uitmaakt van een opleidingsteam. Implementeer het lesmateriaal daarom doordacht en in functie van de opleidingscompetenties. Het kan zinvol zijn om daarover in overleg te gaan met je opleidingscommissie (OC).



## FEEDBACK MOMENT: LET'S GET STARTED!

### BEFORE FEEDBACK

Come to a feedback moment well-prepared.



- Make an honest estimation. Are the results of your assignment or exam as you expected?
- Go over the assignment instructions again. Also go over the assessment criteria, highlight where you have done well and where there is room for improvement. Ask a fellow student for help.
- Have you had feedback before? Go back to that feedback and check what you have handled differently/better. What remaining questions do you have?
- Think about what is your most important feedback question and formulate it in advance. For example: specific feedback on the structure of a writing assignment, on performing a specific skill, ...
- If possible, submit your feedback question to the lecturer.
- Do not hesitate/wait too long to ask for interim feedback. Do not be afraid to show unfinished products, e.g. a part of a paper or a video of yourself performing a skill.
- Ask fellow students (or the lecturer, if possible) for advice.

### DURING FEEDBACK

Actively participate DURING feedback.

Find out more on how you performed: what went well and what did not.

- Ask for examples. Compare your answers to answer keys or model answers.
- Do not be afraid to ask further questions if you do not understand something right away. The following phrase can help you along: "Do you mean to say that...?"
- Show initiative, and enter into a dialogue with the feedback provider.
- Take notes. Write down the lecturer's questions and suggestions.
- During the feedback moment, check whether you have understood the feedback well.
- Summarize the feedback in your own words.



### AFTER FEEDBACK

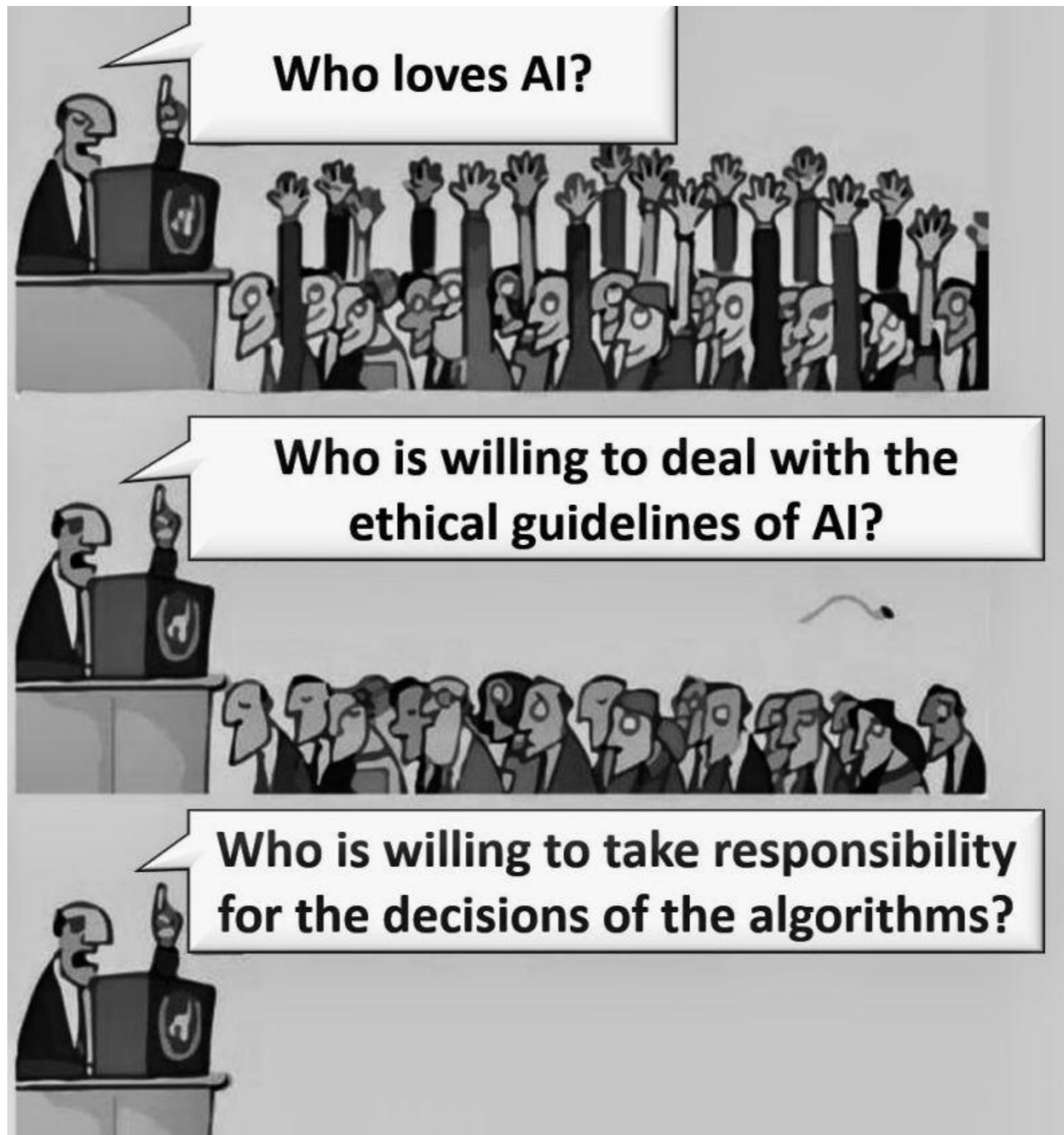
Summarize the feedback AFTER the feedback moment and set to work.

- Reflect: how are you feeling after the feedback moment? Do you feel that it has helped you?
- Take down your strengths, and afterwards, your weaknesses. Consult the assessment criteria to help you along.
- Translate weaknesses into specific improvement actions. Make a priority list. What will you tackle in the short term? What is important in the long term? (e.g. running another self-test, reviewing a chapter again...)
- Find out what you are lacking to enhance your performance. How can you achieve a higher level?
- What is the essence of what you have learnt? What will you remember for a next assignment, exam, ...? Use your own words.
- Share your notes with the lecturer when asked (e.g. in a portfolio).
- Use your notes as a starting point for an ensuing feedback moment.

# PREPARATION OF ORAL EXPLANATION/DEFENCE

Have it documented

- a checklist, such as the example on education tips,
- an overview of prompts with answers used,
- different versions of a text (before and after using genAI and before and after its own adjustments),
- a text explaining responsible use throughout the process, including a critical reflection,
- (all) the above in a logbook.
- Check the guidelines of the programme!





01

**Unreliability**

02

**Violation of privacy**

03

**Infringement of copyright**

04

**Bias**

05

**Uniformity**

06

**Large ecological footprint**

07

**Loss of human connection**

08

**Impact on learning**

09

**Social inequality and unfairness**



# FEEDBACK USING AI-TOOL



AI tool supports:

Giving oral feedback > recording > transcribing > summarizing for students. For example Teams, Panopto, Copilot

“human in the loop”



AI tool supports and takes over: customGPTs, GEM...

→ few-shot prompting = in context learning (usually more accurate)

# How does artificial intelligence compare to human feedback? A meta-analysis of performance, feedback perception, and learning dispositions

Rogers Kaliisa , Kamila Misiejuk , Sonsoles López-Pernas  & Mohammed Saqr 

Received 15 May 2024, Accepted 25 Aug 2025, Published online: 24 Sep 2025

 Cite this article  <https://doi.org/10.1080/01443410.2025.2553639>



- **Performance** No significant difference in feedback from AI +/- feedback from teacher or peer
- **Perception (how students experience feedback)** higher appreciation for human nuance and personal involvement BUT also benefits of AI: speed, detail and consistency
- **Learning dispositions (attitude and motivation towards learning)** Not an unambiguous picture. strengthen and reduce motivation, self-regulation or involvement. Impact depends on context
- **Hybrid approach** the best!

# FEEDBACK USING AI-TOOL

**Prerequisite:** Add context (rubrics, model answers, assignment description)

## **Possibilities:**

- Writing assistant: keywords → clear, structured feedback
- Summary of strengths & weaknesses
- Reflection questions
- Overview of most common errors
- ...

**For students:** quick first scan, superficial errors, addition to human

Feedback - Desirable? additional value?

01

Unreliability

02

Violation of privacy

03

Infringement of copyright

04

Bias

05

Uniformity

06

Large ecological footprint

07

Loss of human connection

08

Impact on learning

09

Social inequality and unfairness



# MASTER DISSERTATION SUPERVISION

	Conversation 1	Conversation 2	Conversation 3	Conversation 4	Oral defence
Intake interview - Research question					Process and product evaluation
Literature study					
Methodology					
Results					

# SAMPLE QUESTIONS ORAL DEFENCE

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[Read More](#)



Questions about

- Understanding the text
- Delineation of research question
- Literature used
- Methodology
- Application of the methodology
- Data analysis
- ...

# WHAT ABOUT AI FOR EVALUATION?

 **Ghent University  
advises against using AI  
tools for evaluation in  
the meantime.**



The [EU AI Act](#) classifies the  
use of student evaluation tools  
as *high-risk*.

# FRAUD DUE TO (GEN-)AI USE VERSUS FAIL

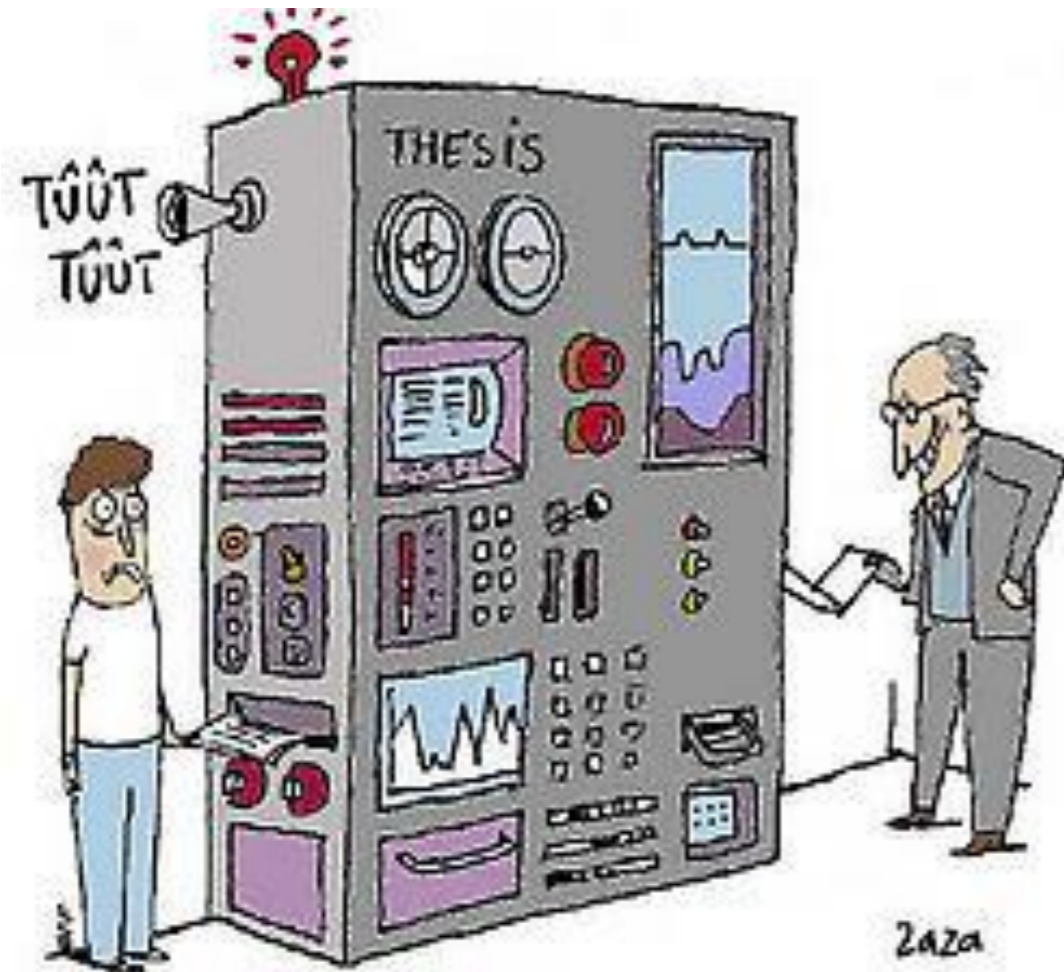
## **Fraud:**

- Plagiarism due to lack of sources, wrong sources, non-existent sources
- Pretending fake data as real data
- Leaving the thought process entirely to the tools, without the intervention / capacity to act (own choices, own ideas...) of the student

## **Fail:**

Student uses genAI, according to the guidelines of the study programme, in a "wrong" way as a result of which it has not acquired the final outcome(s)

# PLAGIARISM



Turnitin

Scribbr.nl

[Google](#)

[plagiarismchecker](#)

AI-detection tools don't work!



# FIVE STAGES OF GRIEF IN THE AGE OF GEN AI



# UFORA COURSE LAUNCHING IN SEMESTER 2, AY 25-26

E-Learning: Mastering the Master's Dissertation (and Other Written Assignments)!





Mansi Sharma  
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onderwijsondersteuner en trainer

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