

# Seminar 2:

## Researcher's path – introduction continues



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Engineering

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# Seminars and schedule 2 cr

WHAT?	WHEN?	TOPICS / ADDITIONAL
<b>Seminar 1: Kick-off</b>	12 January, at 9-11 AS6	Introduction of the course, announcement of the assignments and forming groups Researcher's path – Introduction to practical tips
<b>Aalto Orientation Days for Doctoral Students</b>	15-16 January	Highly recommended to participate Late enrollment to udes@aalto.fi
<b>Seminar 2</b>	19 January, at 9-11 AS6	Researcher's path – introduction continues Communications
<b>Assignment DL</b>	31 January	Practical tips assignment (individual)
<b>Seminar 3</b>	2 February, at 9-11 AS6	Researcher's path – what were the learning outcomes? Research ethics – introduction
<b>Assignment DL</b>	14 February	Ethics (group work)
<b>Seminar 4</b>	16 February, at 9-11 AS6	Research ethics – what were the learning outcomes? Publishing
<b>Assignment DL</b>	28 February	Career assignment (CV + career plan)
<b>Seminar 5</b>	1 March, at 9-11 TU7	Career design and job search workshop
<b>Assignment DL</b>	4 March	Writing assignment (group work)
<b>Feedback sessions for groups (Language instructor William Martin)</b>	12 March	20 min session/group on writing assignment
<b>Seminar 6</b>	15 March, at 9-11 TU7	Panel discussion and tips from graduated doctors
<b>Assignment DL</b>	17 April	Final assignment, diary-type Reflect on your learning on the seminar topics, the Orientation Days and the assignments of the course.

# Programme of today

- **9.15-9.45 Joy & pain of thesis work- Dr. Anu Lehtovuori**
- **Break 10 min**
- **9.55-10.05 Research communication**
- **Break 5 min**
- **10.10-11.00 Becomming a researcher – Emma Holmlund**

# Joy & pain of thesis work

- *Thesis work, dissertation, and  
career*

*Senior Lecturer Anu Lehtovuori*

**Break 10 min, back at 9.55**

# Research communication

Communications manager  
Niina Norjamäki and  
Communications coordinator  
Ira Matilainen

**Break 5 min, back at 10.10**

# General principles of the course

- Dialogue
- Equality
- Openness and confidentiality
- Commitment to the course, group work and assignments



Aalto-yliopisto / Unto Rautio





# Becoming a researcher

- What is a good researcher?

# What kind of qualities does a researcher need?

Professor Joni Pajarinen

- great curiosity, as it involves finding new things and making new observations.
- finding new things requires a lot of effort and that is why researchers need to be resilient.
- it is necessary to be capable of adapting constantly to new situations when expectations do not correspond to reality.
- researchers need to be able to examine things from many different angles.
- researchers are also capable of functioning well with other people because research work is cooperation.

- <https://www.aalto.fi/en/news/professor-joni-pajarinen-believes-in-the-future-potential-of-robots>

- New: <https://www.aalto.fi/en/news/one-of-the-most-important-characteristics-of-a-researcher-is-tolerance-for-uncertainty>

# All researchers-in-training must constantly grapple with:

- uncertainty – You have no idea whether the hard work you are putting into your project even matters.
- isolation – Nobody around you understands or empathizes with what you are doing, since they either lack technical context or are too busy with their own creative struggles.

If you can properly manage these two emotions, make forward progress, get feedback from a mentor every week or two, and get external feedback from paper submissions a few times per year, then you can successfully finish your Ph.D.

**Where can I find information and support for writing and presenting scientific research?**

# When you publish

## Important tools/skills:

- **Manage your references**
- **Structure your article**
- **Write a good abstract (3 credit assignment)**
- **Learn about the publishing process (more in seminar 4)**

**Talk with your professor, advisor, colleagues, peers, search on the internet**

## In the course material:

- [Belt, Möttönen & Härkönen: Practical tips for doctoral students](#)
- [Pekka Belt: How to write scientific articles](#)
- [Writing short articles that engage the reader](#)

# Courses at Aalto

<https://into.aalto.fi/display/enopinnot/Courses+for+doctoral+students>

- LC-1350 Writing Doctoral Research for Engineering and Science, 3 ECTS
- 21E72500 - Finding Joy and Productivity in Academic Writing
- LC-1330 Presenting Doctoral Research 3 ECTS
- LC-1336 Popularize your research, 1-3 ECTS
- LC-L1000 Research Ethics for Doctoral Students, 2 ECTS
- LC-1335 Preparing for the Doctoral Defense, 1 credits
- Writing Clinic and Speech Clinic

# Reflective writing

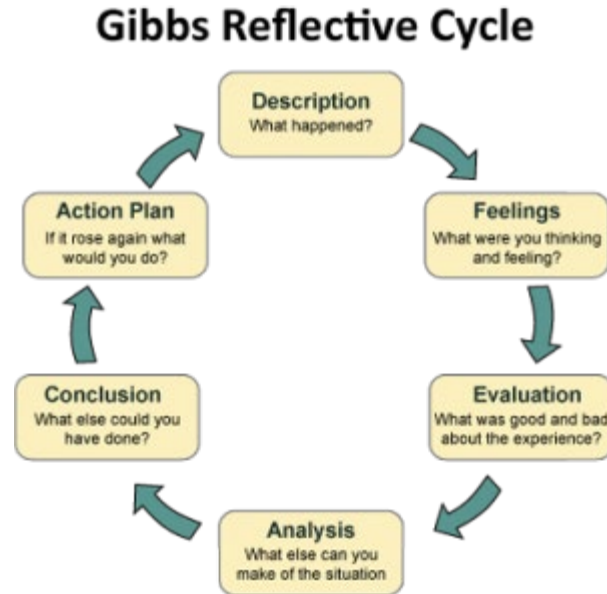
-needed in the practical tips assignment and in the final assignment

Gibbs reflective cycle / learning diary

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# Gibbs' Reflective Cycle

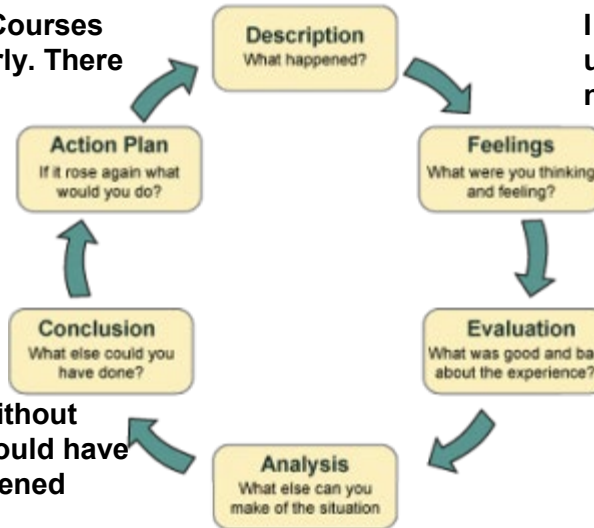


# Gibbs' Reflective Cycle

I listened to a presentation on Gibbs' reflective cycle by Antti Ojapelto. 28 other doctoral students present. Got an idea how to use it.

## Gibbs Reflective Cycle

I need to see materials linked in the MyCourses page to see how I use this model properly. There should be some examples, too.



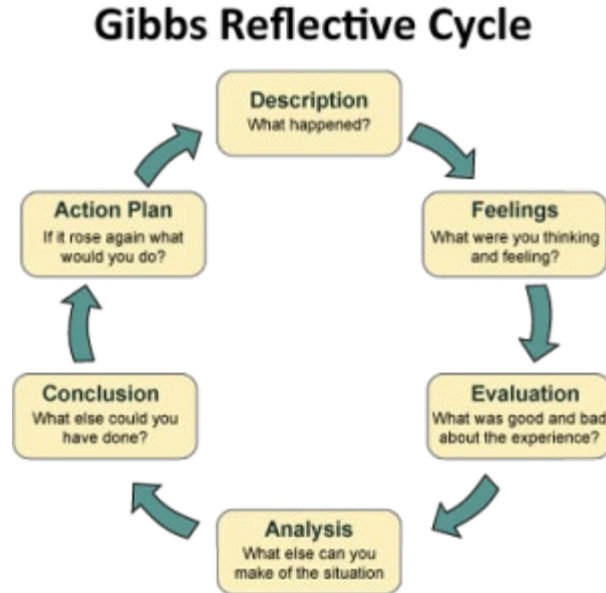
I was quite curious as this seems something useful. / I felt really frustrated, I just want to do, not use my time for reflection.

It's hard to learn anything thoroughly without trying yourself, this thing especially. I could have been more active though, or at least listened more carefully.

I'm interested in how I learn, so finding another tool for that is valuable.. / It's good that they present this if they require it, even though the whole reflection is a waste of time.

The presentation was ok, but I was new to this and still not sure if I can really use the model properly.

# Gibbs' Reflective Cycle



Reflect on something that happened today.  
Try to use this model.

# Learning diary – a tool for reflection

- reflection of what you have heard, discussed, read or experienced at the course
- a mere summary is not enough. A learning diary demonstrates critical thinking.

## Steps

1. Before the seminar - what were your expectations?
2. Short introduction – what did you learn and how was the learning realized? Assessment of the success of your learning.
3. Briefly the content of the learning and the discussions. Content assessment.
4. Analytical reflection on the content and your own learning.

# Wrap-up - seminar 2

# Is the following true for you?

- I have gotten some tips and tools for becoming a researcher.

# Upcoming assignments

# Assignment 1: Researcher's path – Practical tips, reflective writing

- Write an reflective essay using Gibbs reflective cycle
- DL: 31.1.
- The learning outcomes will be discussed in seminar 3
- **Practical tips topics**
  - A functional research group
  - Tips for completing doctoral studies
  - Tips for writing a monograph dissertation
  - Tips for writing a compilation dissertation
  - Tips for writing articles
  - Tips for applying research grants



# Assignment 2: Research ethics group work

- Have you all chosen a topic for the ethics group work (dl 26.1):  
<https://mycourses.aalto.fi/mod/choice/view.php?id=1123742>
- Further introduction to the topic in seminar 3 (2.2).
- Assignment deadline 14.2
- The learning outcomes will be discussed in seminar 4 (16.2)
- Research ethics course 26.2.-27.3.2024:  
<https://www.aalto.fi/en/doctoral-education/research-ethics-for-doctoral-students-course>

# Assignment 4: Writing group work

- Do you all have a group?
- Have you all selected a topic and started planning your text
- Remember to include the Authors' contribution
- Deadline 4.3.
- Group feedback in March (12.3) from William Martin. Please enroll your group to a feedback session: will be opened in MyCourses (dl Thu 7.3)
- If something feels unclear, please contact William Martin ([william.martin1970@gmail.com](mailto:william.martin1970@gmail.com))

# Remember also:

- To make notes after every seminar for the final assignment

# Questions? See you in Seminar 3!



# Short practice on reflection

<https://presemo.aalto.fi/intro23>