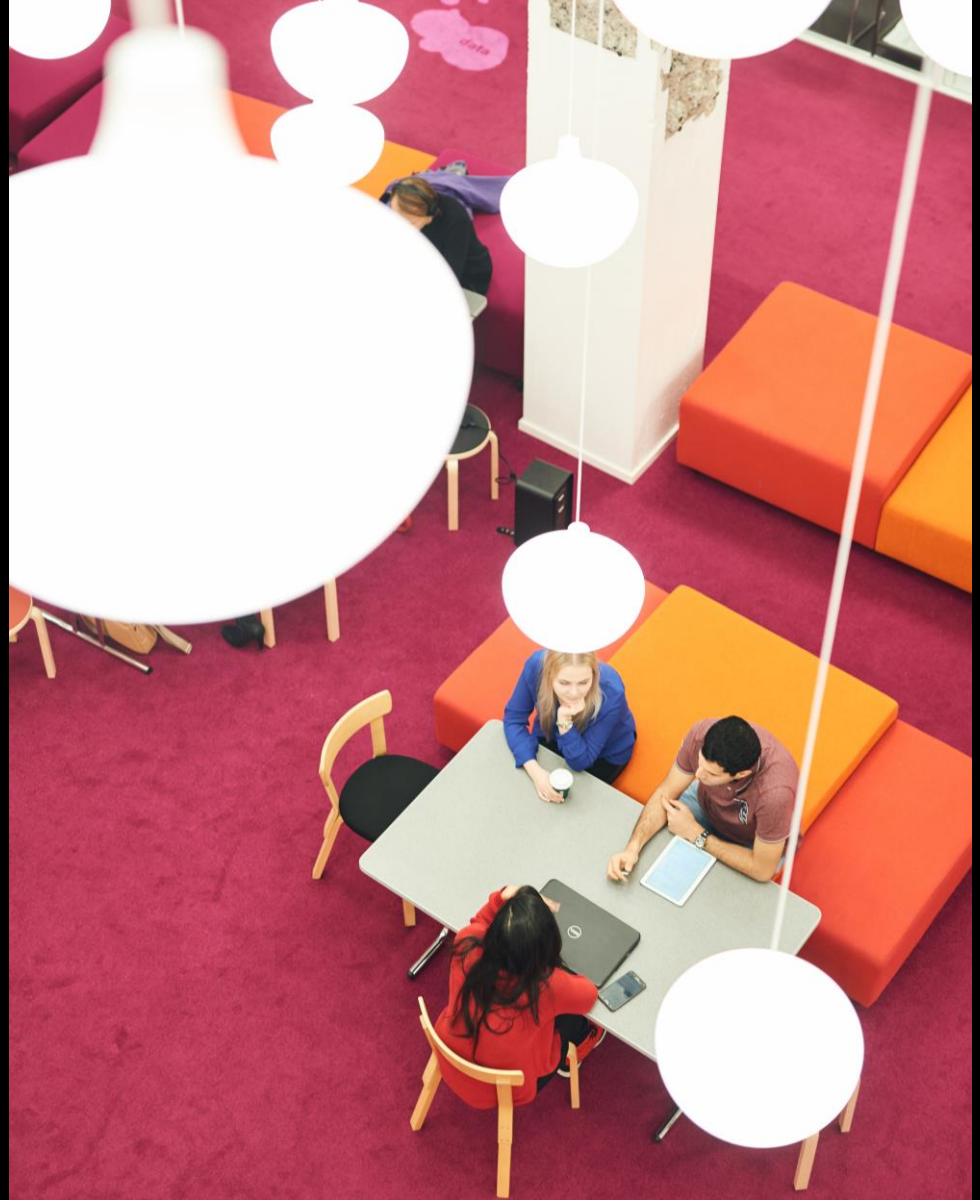
Learning and Teaching in Higher Education (5 ECTS)

DAY 4 – BECOMING AN EXPERT

Samu Tikkanen & Linda Mäkinen

25.10.2023

Aalto-yliopisto
Aalto-universitetet
Aalto University



THOUGHTS ON EDUCATION

PETRI SUOMALA, Vice President, Education

Future expertise in your field

It is year 2035 and you desire to have the best experts in your research group / organization / business.

Discussion groups (10 mins):

What kind of expertise do you value from the viewpoint of the future? Why?

Education: Future-led learning | Aalto University
OECD: https://www.oecd.org/future-of-work/#what-is-the-future-of-work
Sitra: https://www.sitra.fi/en/projects/futures-frequency/#

Groups

Harri
Jari
Emma

Christine
Kai
Julia

Kathrin
Hedon
Heidi
Farid

Eduardo
Sesilja
Inge
Girish

Janne
Jose
Valeriya

BREAK UNTIL 15.10

Picture: Stock Images

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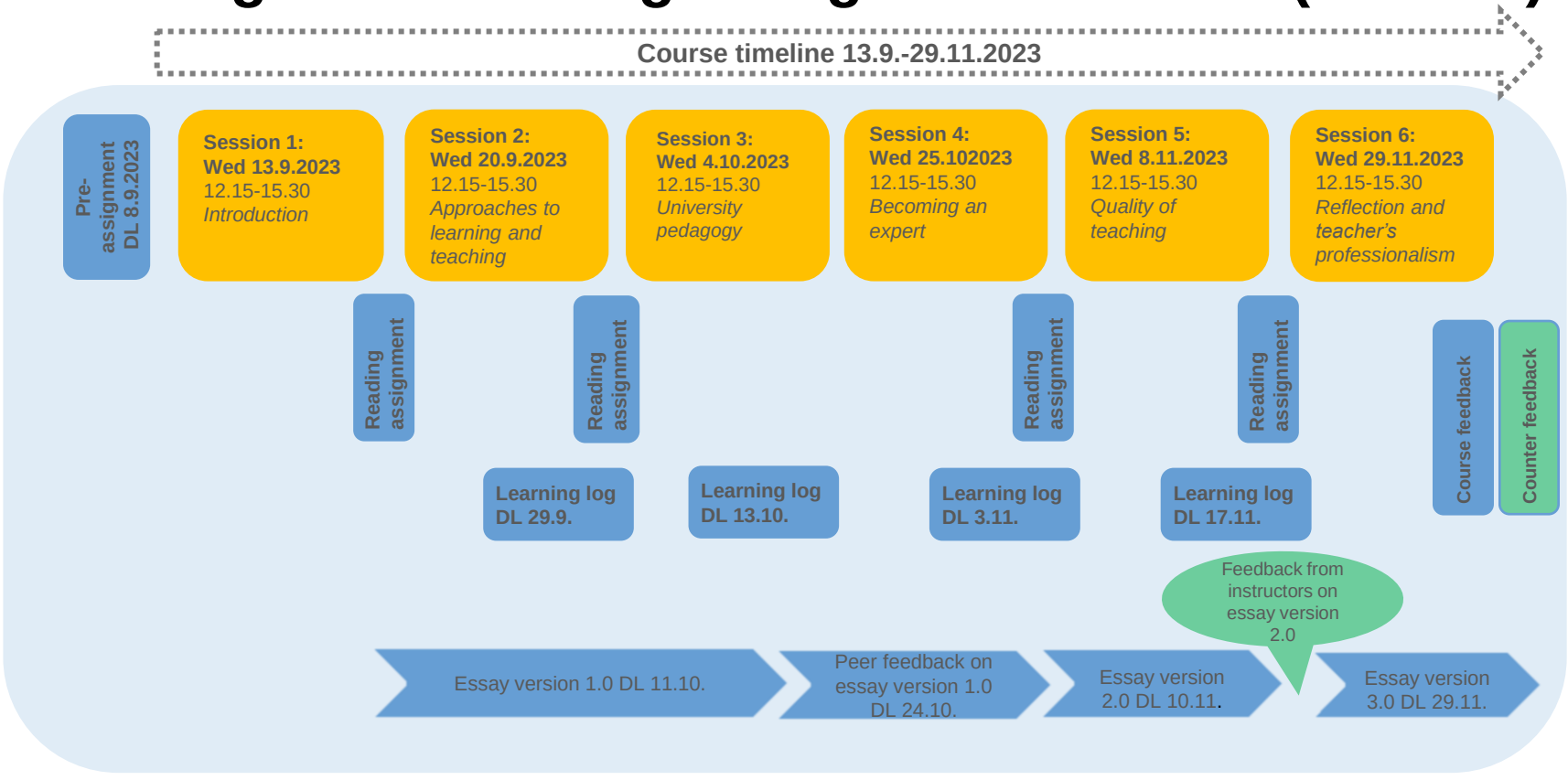

Individual reflecting & processing during the course

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Learning outcomes for this course

After the course, you:

- will be able to identify, define and evaluate factors that affect your teaching,
- will be able to recognize different learning theories and have become aware of how they influence teaching,
- have formed own approach to teaching / teaching philosophy and you have knowledge on how to develop your teachership and teaching,
- you recognize factors which affect to the quality of teaching,
- know how to consider students as experts of the future, have reflected on your own expertise and your development as a teacher,
- be able to understand your own teaching in a wider context and envisage the expertise provided, by your own field of teaching and the future prospects of the field.

Schedule today 12.15–15.30

Guest Petri Suomala, Vice President Education

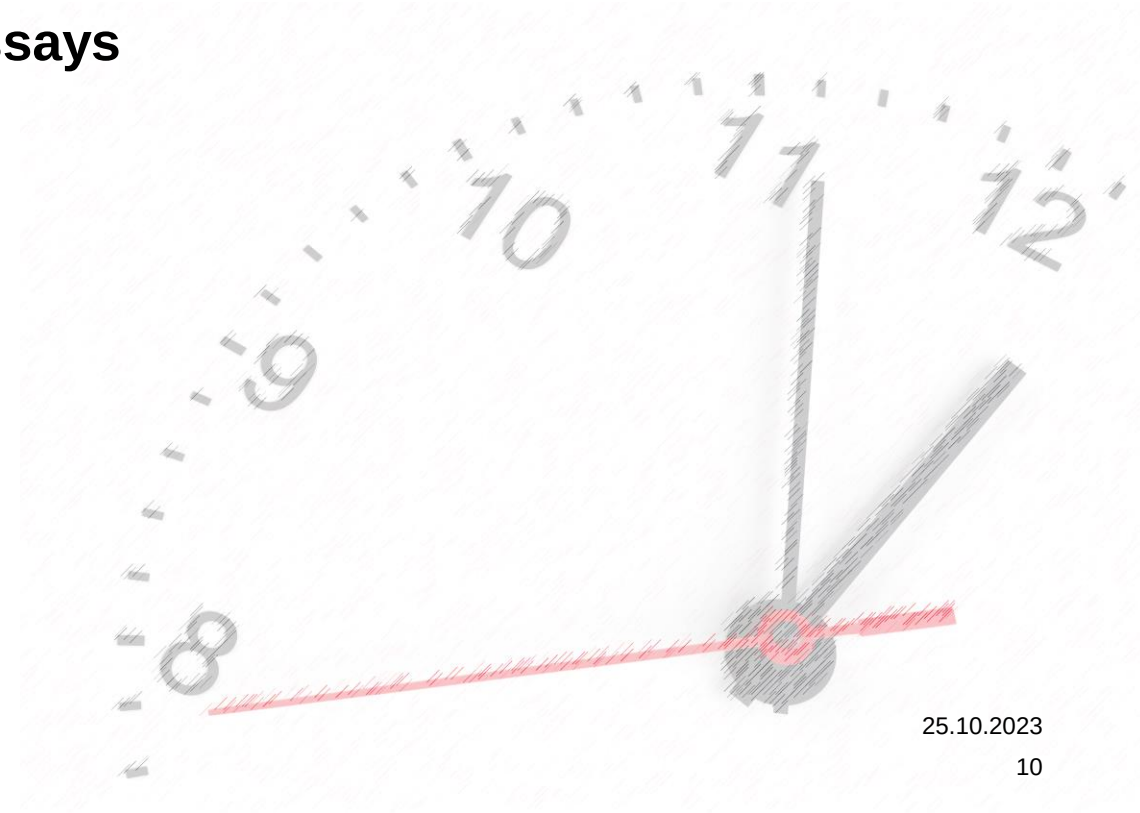
BREAK

GROW peer feedback on essays

BREAK

Becoming an expert

For the next time



I like…

Discussions and interaction

Pace of the course and

structure of the teaching sessions

I wish…

More time for the discussions

More practical examples

To have material available in advance

https://presemo.aalto.fi/lthe23

I like I wish | A Facilitated Team Feedback Session Method

Learning logs

Research papers

- Teaching method which is feasible despite the increasing student numbers
- Database taken in use

Course feedback

- What a teacher can and cannot do? Where to use resources?
- New feedback tool sounds promising

Signature pedagogy

- Cultural changes (university pedagogics, working life)

Methods

- Colour papers at the beginning
- Group discussions within own school
- The hands-on feedback task

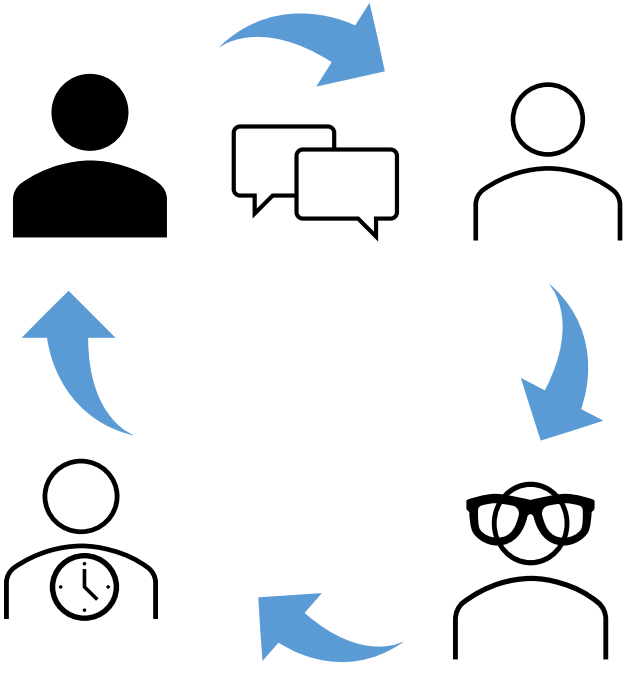
Peer feedback on essays

Feedback

Constructive	Unconstructive/ destructive
Is about an issue/action	Is about a person
Justifies the views	Contains judgements (good/bad)
Is useful for development	Does not necessarily benefit anyone
Takes into account the recipient's state of development, situation, ability to receive feedback etc.	Does not take the recipient into account, is given only from the evaluator's perspective
States observations	Makes subjective conclusions / interpretations
Two-way process, the recipient has an opportunity of responding	One-way process

Roles and tasks in the feedback discussion (12 min per round)

Instructor
- Starts by interviewing the student of the writing process.
- Gives constructive feedback and tries to build a dialogue with the student.



Student
- Listens, reflects and answers the questions

Observer (~2 min)
- Observes the quality of the feedback discussion and summarizes the discussion:
  - What was the dialogue like between the student and the instructor?
  - How did the questions promote the discussion?
  - Was the feedback constructive?
  - How did the coach act in the situation?

Timekeeper
- Takes care of the schedule.
- Tells when there is one minute left for giving feedback.

GROW model
– a framework to give feedback on / guide the process

(Whitmore, John: Coaching for Performance)

Modified GROW model (12 min per round)

Set goal (~2 min)
- How would you define your goals for writing the essay?

Reality (~2 min)
- What have you done? What has helped you to write the essay?
- How close are you in completing your essay on a scale of 1-10 (if 10 means best possible situation and 0 opposite to it)?

Opportunities and options (~2 min)
- What do you have to do to complete your essay and achieve your goals?
- Is there something that prevents you to carry out your plans?

Wrap-up: What – when – by whom + will to do it (~4 min)
- What are the next small steps that will be carried out next in order to move on in your writing processs?
- How can you solve the possible obstacles?

(Whitmore: Coaching for Performance)

Group A

Valeriya, Kai, Eduardo

- Round 1: instructor **Eduardo**, student **Valeriya**, observer, timekeeper **Kai**
- Round 2: instructor **Kai**, student **Eduardo**, observer, timekeeper **Valeriya**
- Round 3: student **Kai**, instructors **Eduardo, Valeriya**

Each round:

- The instructor gives constructive feedback and discusses with the student (10 mins).
- The observer observes the quality of feedback discussion and gives feedback of the instruction at the end (2 mins).
- The timekeeper takes care of the schedule.

After the rounds, if there is time:

- Make yourself notes of the feedback discussion so you can continue writing the essay based on the feedback.

Group B

Harri, Heidi, Sesilja

- Round 1: instructor **Sesilja**, student **Harri**, observer, timekeeper **Heidi**
- Round 2: instructor **Heidi**, student **Sesilja**, observer, timekeeper **Harri**
- Round 3: student **Heidi**, instructors **Sesilja, Harri**

Each round:

- The instructor gives constructive feedback and discusses with the student (10 mins).
- The observer observes the quality of feedback discussion and gives feedback of the instruction at the end (2 mins).
- The timekeeper takes care of the schedule.

After the rounds, if there is time:

- Make yourself notes of the feedback discussion so you can continue writing the essay based on the feedback.

Group C

Emma, Christine, Julia, Girish

- Round 1: instructor **Emma,** student **Christine**, observer **Julia** and timekeeper **Girish**
- Round 2: instructor **Girish**, student **Emma**, observer **Chirstine** and timekeeper **Julia**
- Round 3: instructor **Julia**, student **Girish**, observer **Emma** and timekeeper **Christine**
- Round 4: instructor **Christine**, student **Julia**, observer **Girish** and timekeeper **Emma**

Each round:

- The instructor gives constructive feedback and discusses with the student (10 mins).
- The observer observes the quality of feedback discussion and gives feedback of the instruction at the end (2 mins).
- The timekeeper takes care of the schedule.

After the rounds, if there is time:

- Make yourself notes of the feedback discussion so you can continue writing the essay based on the feedback.

Group D

Farid, Inge, Janne, Kathrin

- Round 1: instructor **Farid,** student **Inge**, observer **Janne** and timekeeper **Kathrin**
- Round 2: instructor **Kathrin**, student **Farid**, observer **Inge** and timekeeper **Janne**
- Round 3: instructor **Janne**, student **Kathrin**, observer **Farid** and timekeeper **Inge**
- Round 4: instructor **Inge**, student **Janne**, observer **Kathrin** and timekeeper **Farid**

Each round:

- The instructor gives constructive feedback and discusses with the student (10 mins).
- The observer observes the quality of feedback discussion and gives feedback of the instruction at the end (2 mins).
- The timekeeper takes care of the schedule.

After the rounds, if there is time:

- Make yourself notes of the feedback discussion so you can continue writing the essay based on the feedback.

Group E

Mari, Hedon, Jari, Jose

- Round 1: instructor **Mari,** student **Hedon**, observer **Jari** and timekeeper **Jose**
- Round 2: instructor **Jari**, student **Jose**, observer **Mari** and timekeeper **Hedon**
- Round 3: instructor **Jose**, student **Mari**, observer **Hedon** and timekeeper **Jari**
- Round 4: student **Jari**, instructors **Hedon, Jose, Mari.**

Each round:

- The instructor gives constructive feedback and discusses with the student (10 mins).
- The observer observes the quality of feedback discussion and gives feedback of the instruction at the end (2 mins).
- The timekeeper takes care of the schedule.

After the rounds, if there is time:

- Make yourself notes of the feedback discussion so you can continue writing the essay based on the feedback.

BREAK

Picture: Stock Images

Becoming an expert

Important working life skills listed by Aalto University graduates

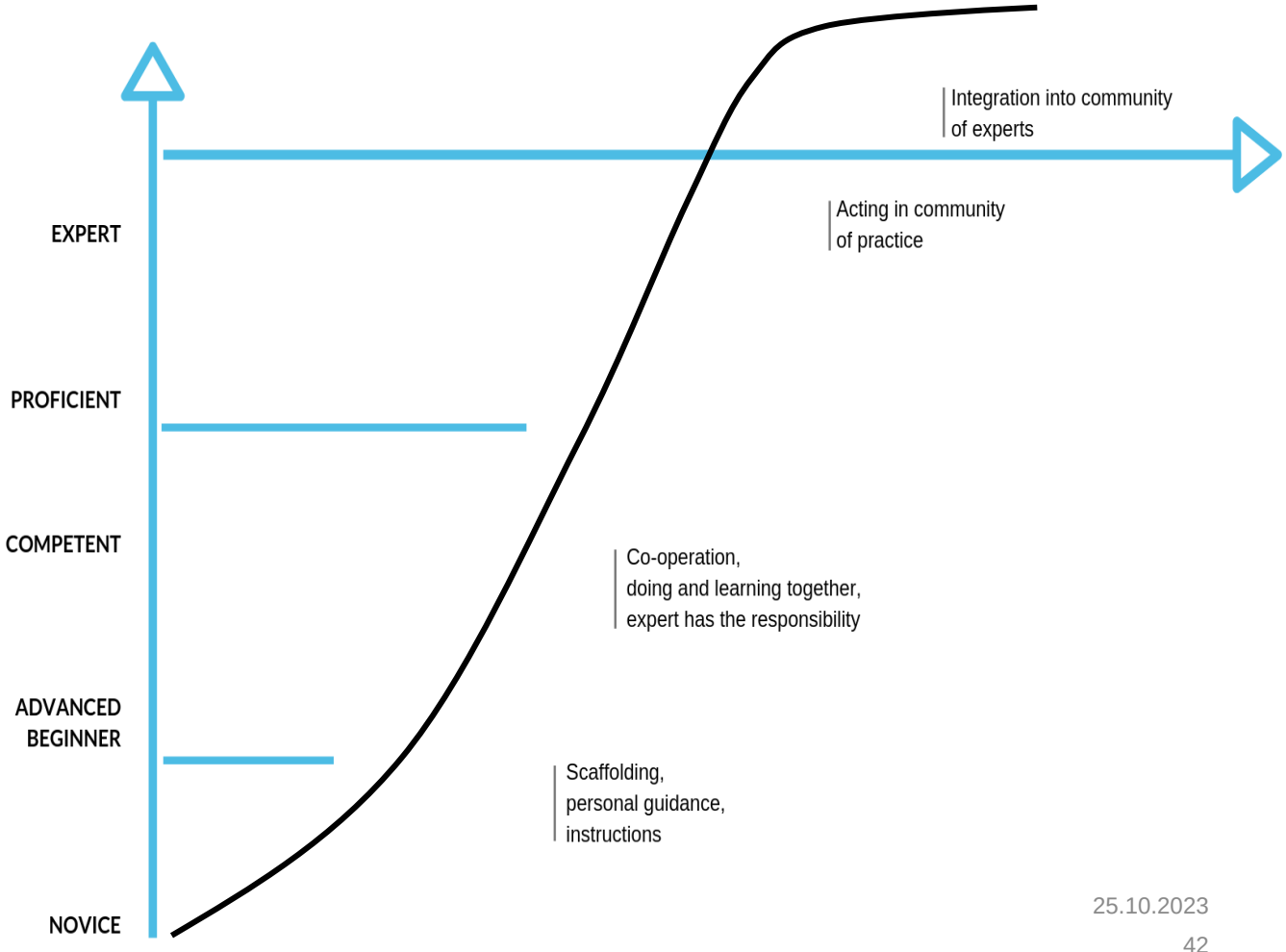
“Master’s graduates of Aalto University emphasized the ability to communicate own skills, previous work experience and the subject combination of the degree as the most important factors in finding employment. The respondents identified ***the ability to learn*** *and* ***adopt new things***, ***problem-solving skills***, ***analytical and systematic thinking skills and self-direction*** *as the most important skills needed at work that developed during university studies.”*

Aalto News on 13.9.2023: Aalto University graduates valued in the job market | Aalto University

To Become an Expert is a Process

Deliberate practice

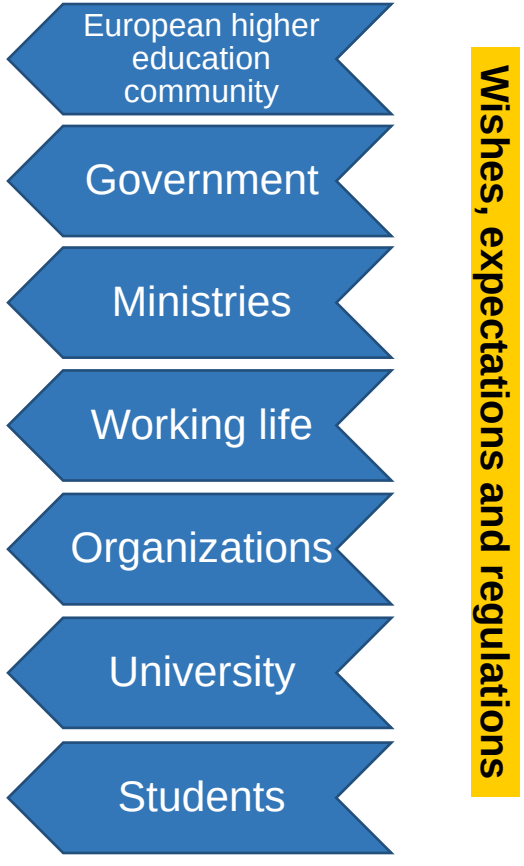
- Long term practicing
- Focusing on improving performance in aspects that need it the most
- Using the latest scientific knowledge of the field
- Mentoring & social support and feedback are essential parts of the process



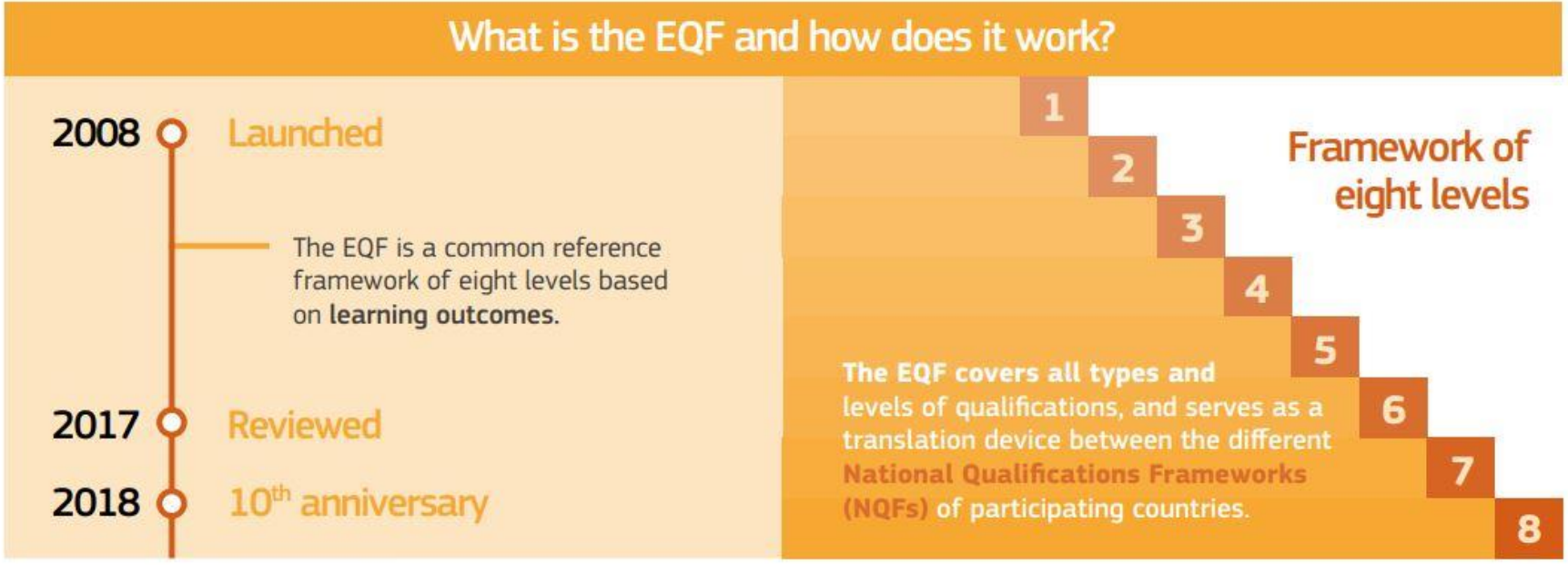
Hakkarainen, 2000; Anderson, 1982; Dreyfus 1986

What to teach to our future experts?

- Who defines the desirable expertise?
- Working life-oriented approach or renewing working life?
- Life-wide learning
  - Diversified student body
- Planning, implementation and resources of teaching
- Global challenges and crises
- Development of technology
  - AI, social media



European Qualifications Framework (EQF)



Qualifications frameworks | Finnish National Agency for Education (oph.fi)

What are the EQF's objectives?

The EQF aims to improve the transparency and comparability of people's qualifications.

It also aims to:

modernise education and training systems,

increase the employability, mobility and social integration of individuals,

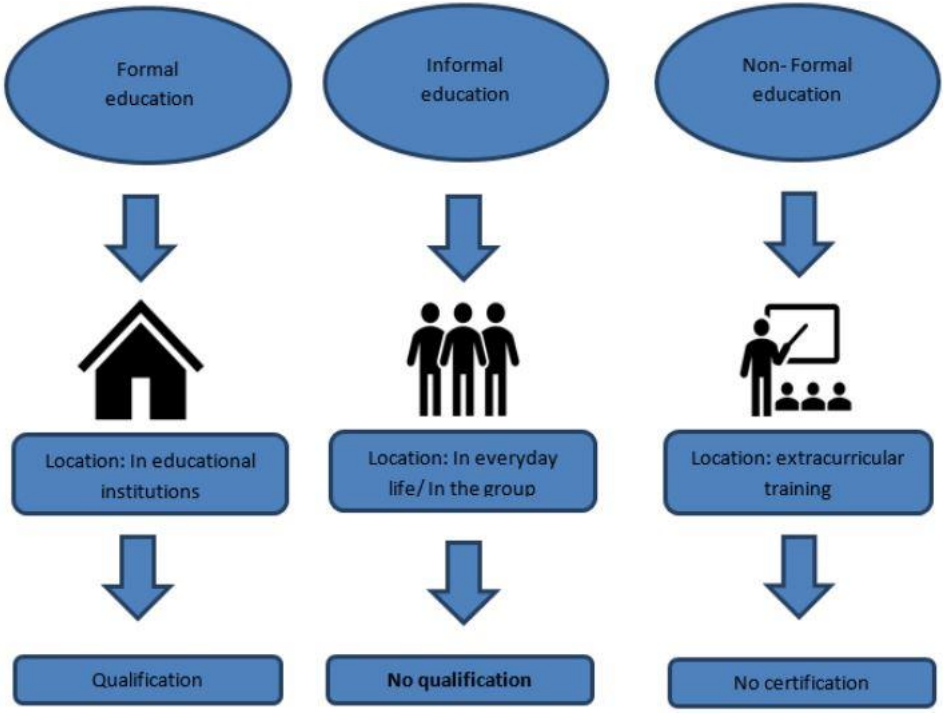
link all types of learning and support the validation of learning outcomes.

[Qualifications frameworks | Finnish National Agency for Education (oph.fi)]

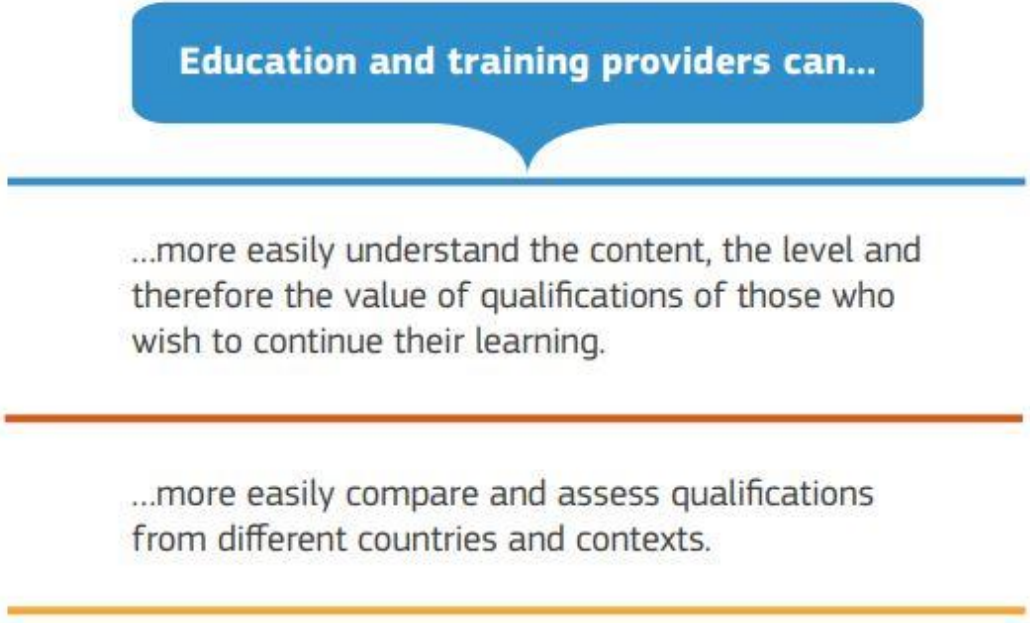
What are learning outcomes?

1. Learning outcomes express what a person is expected to know, understand and is able to do.
2. They describe the content of qualifications, clarifying what is expected from a learner.
3. They support progression in learning, making it possible to compare and combine learning from different contexts (formal, non-formal or informal).

Qualifications frameworks | Finnish National Agency for Education (oph.fi)



Formal, Informal and Non-Formal Learning – PE-LE project



Qualifications frameworks | Finnish National Agency for Education (oph.fi)

Level **6**	***Finnish National Qualifications Framework*** *Descriptors*	***European Qualifications Framework*** *Descriptors*
• Bachelor's degrees (universities of applied sciences) • Bachelor's degrees (universities)	○ Has a good command of comprehensive and advanced knowledge of his/her field, involving a critical understanding and appraisal of theories, key concepts, methods and principles. ○ Understands the extent and boundaries of professional functions and/or disciplines. ○ Has advanced cognitive and practical skills, demonstrating mastery of the issues and the ability to apply knowledge and find creative solutions and applications required in a specialised professional, scientific or artistic field to solve complex or unpredictable problems. ○ Works independently in expert tasks of the field and in international co-operation or as an entrepreneur. ○ Manages complex professional activities or projects. ○ Can make decisions in unpredictable operating environments. In addition to evaluating and developing his/her own competence, he/she takes responsibility for the development of individuals and groups. ○ Has the ability for lifelong learning. ○ Considers communal and ethical aspects when dealing with different people in learning and working communities and other groups and networks. ○ Communicates to a good standard verbally and in writing in his/her mother tongue both to audiences in the field and outside it. ○ Communicates and interacts in the second national language and is capable of international communication and interaction in his/her field in at least one foreign language.	Advanced knowledge of a field of work or study, involving a critical understanding of theories and principles Advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study Manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts; take responsibility for managing professional development of individuals and groups

Level **7**	***Finnish National Qualifications Framework*** *Descriptors*	***European Qualifications Framework*** *Descriptors*
• Master's degrees (universities of applied sciences) • Master's degrees (universities)	○ Understands comprehensive and highly specialised concepts, methods and knowledge corresponding to the specialised competence in his/her field, which are used as the basis for independent thinking and/or research. ○ Understands issues that are at the interface between his/her field and different fields and evaluates them and new knowledge critically. ○ Solves demanding problems, also creatively, in research and/or innovation, which develop new knowledge and procedures and applies and combines knowledge from various fields. ○ Works independently in demanding expert tasks of the field and in international co-operation or as an entrepreneur. ○ Manages and develops complex, unpredictable and new strategic approaches. ○ Manages things and/or people. ○ Evaluates the activities of individuals and groups. ○ Accumulates knowledge and practices in his/her field and/or takes responsibility for the development of others. ○ Has the ability for lifelong learning. ○ Considers communal and ethical aspects when dealing with different people in learning and working communities and other groups and networks. ○ Communicates to a good standard verbally and in writing in his/her mother tongue both to audiences in the field and outside it. ○ Communicates and interacts in the second national language and is capable of demanding international communication and interaction in his/her field in at least one foreign language.	Highly specialised knowledge, some of which is at the forefront of knowledge in a field of work or study, as the basis for original thinking and/or research Critical awareness of knowledge issues in a field and at the interface between different fields Specialised problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields Manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches; take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams

Level **8**	***Finnish National Qualifications Framework*** *Descriptors*	***European Qualifications Framework*** *Descriptors*
• Universities' and National Defence University's scientific and artistic postgraduate degrees (licentiate and doctoral degrees) • General Staff Officer's Degree • Specialist Degree in Veterinary Medicine • Specialist training in medicine • Specialist training in dentistry	○ Has a good command of extensive knowledge areas and contexts. ○ Masters the most advanced and/or specialised and most profound knowledge, skills and/or theories, which are placed at the most advanced and/or specialised level of the field and at the interface between different fields. ○ Finds creative solutions. ○ Creates new knowledge in compliance with good scientific practice. ○ Conducts independent and reliable scientific or artistic and professional research. ○ Develops professional functions and/or his/her scientific or artistic field. ○ Develops and applies new ideas, theories, approaches or processes in the most advanced operating environments. ○ Works independently in the most demanding expert tasks of the field and in international co-operation or as an entrepreneur. ○ Manages things and/or people. ○ Synthesises and prepares critical evaluations required to solve complex problems in research and/or innovation. ○ Extends and redefines knowledge or professional practices. ○ Accumulates knowledge in his/her field and/or takes responsibility for the development of others. ○ Has the ability for lifelong learning. ○ Considers communal and ethical aspects when dealing with different people in learning and working communities and other groups and networks. ○ Communicates to a good standard verbally and in writing in his/her mother tongue both to the scientific community and the general public on issues pertaining to his/her own research area and the entire discipline and/or professional field. ○ Communicates and interacts in the second national language and is capable of demanding international communication and interaction in his/her field in at least one foreign language.	Knowledge at the most advanced frontier of a field of work or study and at the interface between fields The most advanced and specialised skills and techniques, including synthesis and evaluation, required to solve critical problems in research and/or innovation and to extend and redefine existing knowledge or professional practice Demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research

How to support the process of becoming an expert?

"The mission of the universities is to promote independent academic research as well as academic and artistic education, to provide research-based higher education and to educate students to serve their country and humanity at large. In carrying out their mission, the universities shall promote lifelong learning, interact with the surrounding society and promote the social impact of university research findings and artistic activities. "

(Universities Act 2009/558,2§ / section 2.)

Discipline based expertise (**what**) and pedagogical competence (**how**).

Constructively aligned curriculum

- Integration of the theoretical knowledge and practice:
- Simplify abstract and difficult concepts into examples
  - Real life examples, case examples

Integration to the scientific community, professional identity, wider understanding of the context:

- Academical guidance during the studies
- Pedagogical guidance during the studies
- Co-operation with the industry

Murtonen M (2017) Opettajana yliopistolla : korkeakoulupedagogiikan perusteet
(available only in Finnish)

Assignments for the next session 8.11.2023, instructions on MyCourses

Writing your essay, version 2, DL 10.11.2023.

You will receive written feedback from the instructors!

Learning log 3, DL 3.11.2023

Reading assignments, DL 7.11.2023:

1. Chapter 14: Krause, Kerri-Lee 2021: A Quality Approach to University Teaching. In the book *University Teaching in Focus. A learning-centred approach.* p. 304–327.
2. The Quality Handbook of Aalto: Quality management | Aalto University
3. Abstract of Aalto University Audit by Finnish Education Evaluation Centre


Thank you!