

Learning and Teaching in Higher Education (5 ECTS)

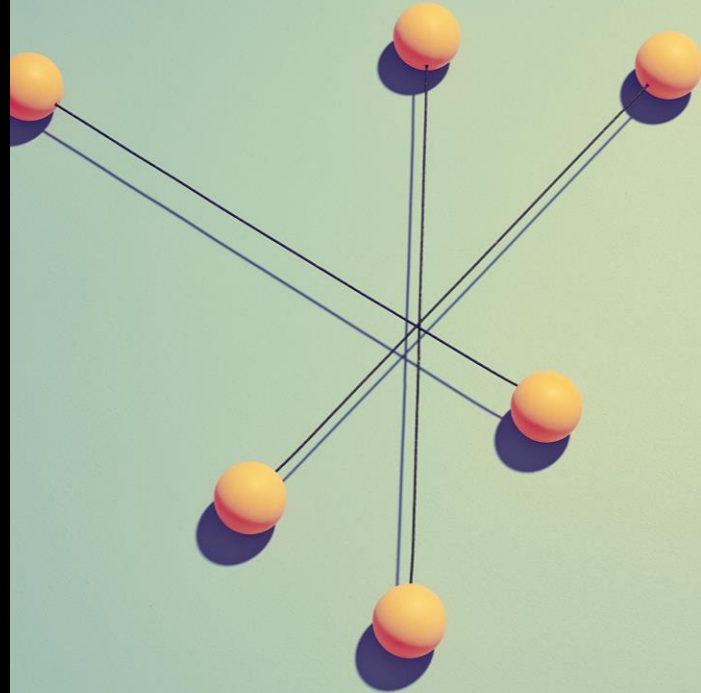
Session 1 – Introduction

Anna Vilhunen & Linda Mäkinen

5.3.2024



Aalto-yliopisto
Aalto-universitetet
Aalto University



Welcome to the course!

Your course teachers:



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Schedule today 12.15–16.00

Introduction to the course

Getting to know each other

BREAK

Learning theories

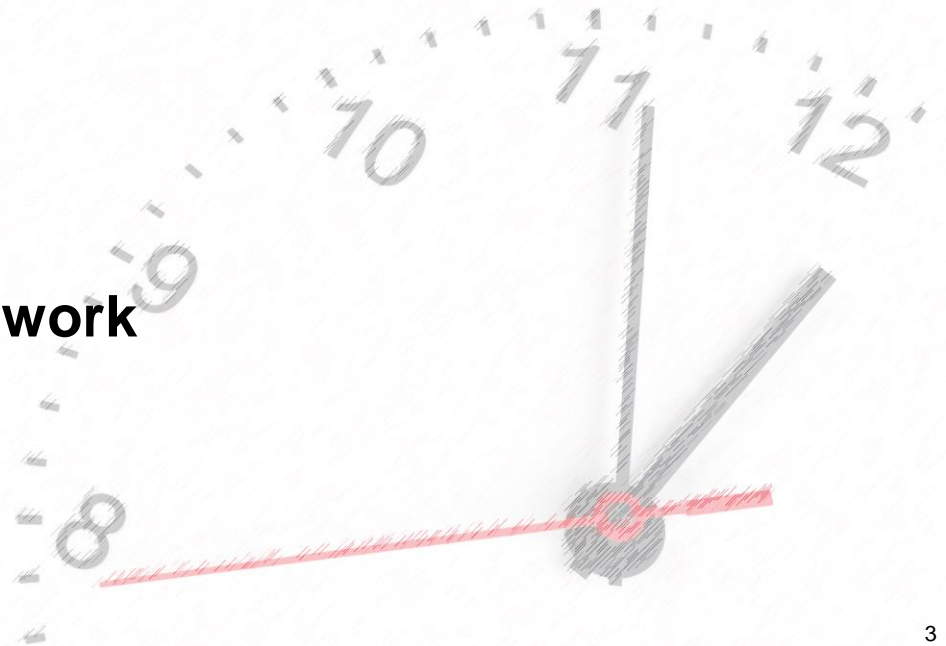
Pre-assignment

BREAK

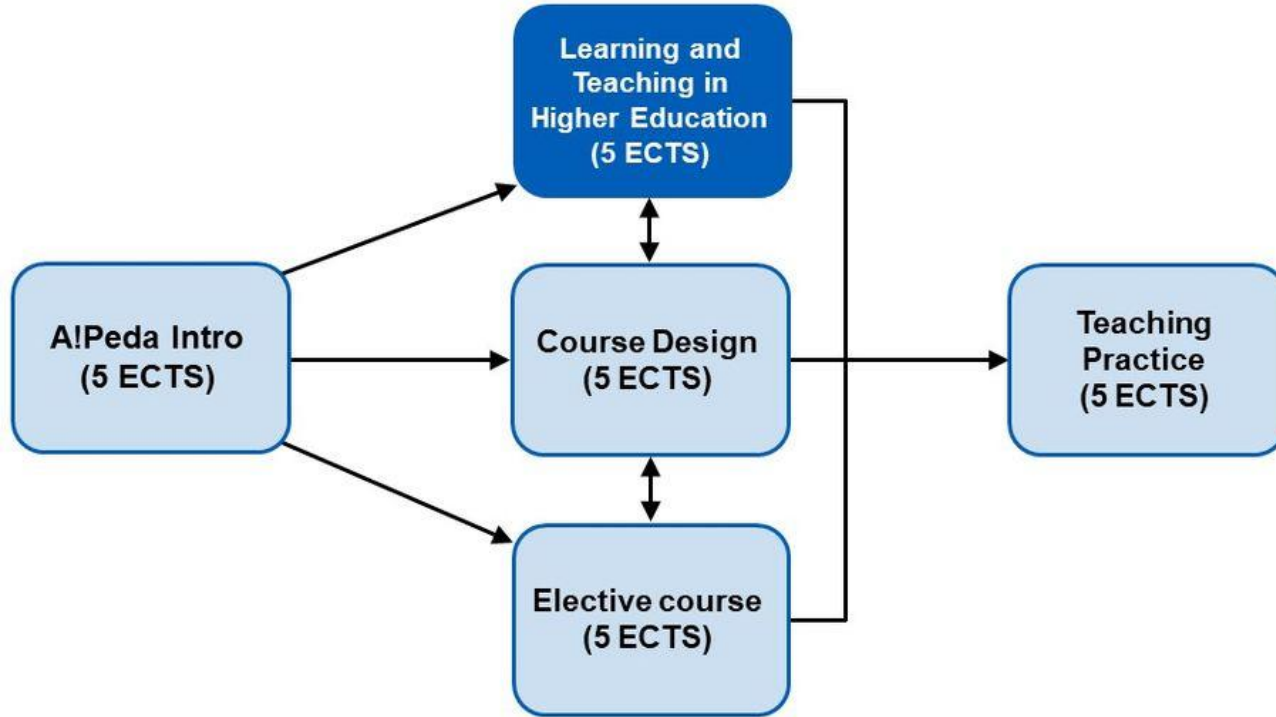
What is learning? – Group work

For the next time

Feedback

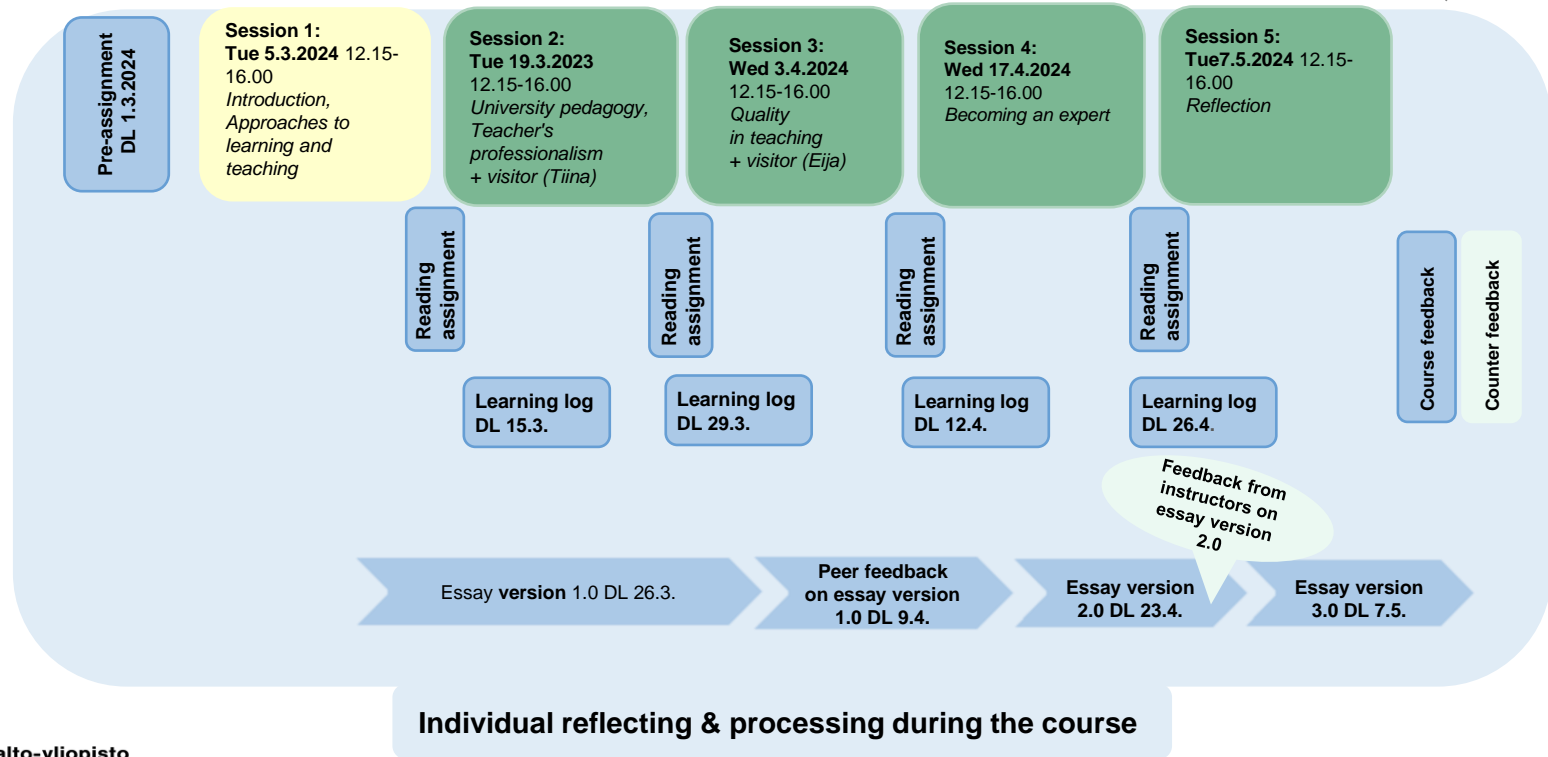


Aalto University Pedagogical Training (25 ECTS)



Learning and Teaching in Higher Education (5 ECTS)

Course timeline 5.3.-7.5.2024



Learning outcomes for this course

After the course, you:

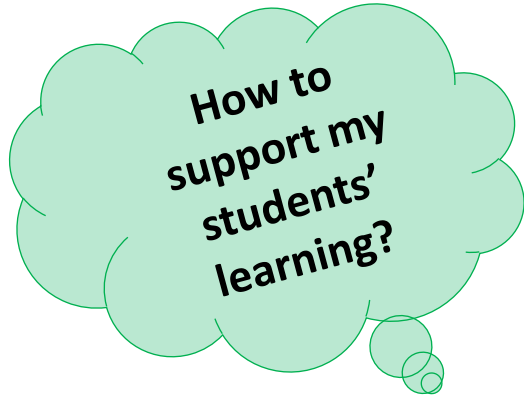
- will be able to identify, define and evaluate factors that affect your teaching,
- will be able to recognize different learning theories and have become aware of how they influence teaching,
- have formed own approach to teaching / teaching philosophy and you have knowledge on how to develop your teachership 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.

Learning outcomes for today

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.

Contents



Concept of learning

Learning-centred culture

Learning theories

Approach to learning and teaching

Reflection

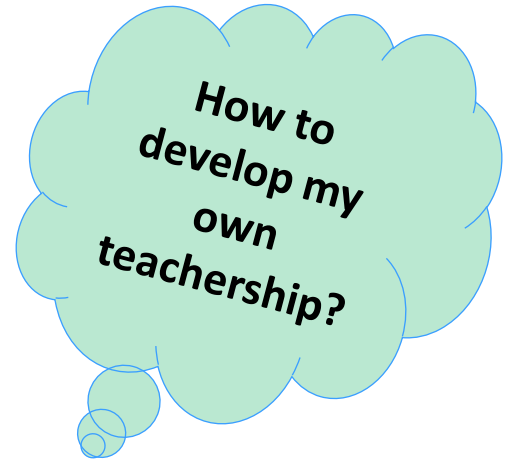
Providing & receiving feedback

Quality of learning

Expertise (students)

Quality of teaching

Expertise (teacher)



Methods and assessment

- The course is largely based on learning and teaching methods, that are
 - **Interactive**, e.g., learning café, snowball, fishbowl, GROW feedback method...
 - **Reflective**, e.g., pre-assignment, reading assignments, learning logs, an essay, peer feedback
- The teaching sessions also contain some lecturing by the teachers or visitors
- Research and literature is utilized to support learning (discipline-based and other educational research articles, journals, literature, links...)
- The **course will be graded pass/fail based on attendance and completed learning assignments** approximately two-three weeks after the end date (7 May) of this course. Therefore, it is very important that you can participate in all the teaching sessions and complete all the course assignments in time.

General principles

Dialogue 

Equality 

Narrative 

Building shared knowledge 

Openness and confidentiality 

Commitment to the common process 

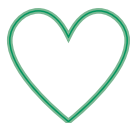
Practicalities 

Verme's principles (Heikkinen&al., 2012)

Housekeeping



Please, **feel free to ask questions at any time** during or outside the sessions.



We are here together, learning from each other.
Inclusion, kindness and respect are the ways of working.
In practice, this means being compassionate to yourself and others, respect different viewpoints, identities and backgrounds, and apologizing when needed: this shared space is for the process of learning & unlearning!
Read more: [Agreeing guidelines for inclusive interaction in course | Aalto University](#)

Feedback

This course has been developed

- **Based on the course feedback (autumn 2023 and previous) by e.g.,**
 - Clarifying course content
 - Strengthening the alignment between course content & learning outcomes, assignments, literature and visiting lectures
 - Clarifying assignment instructions.
- **Based on Aalto Strategy by e.g.,**
 - Integrating sustainability related reflection
 - Renewing the course feedback collection (Webropol → MyCo).

Course feedback is collected during and after the course, likewise the participants receive counter feedback from the teachers.

Course workload allocation

Learning and Teaching in Higher Education (5 ECTS)

1 ECTS = ~27h

5 ECTS = 5 * ~27h = ~135 h

Contact sessions	43h 50min
Contact sessions	5 * 3h 45min = 18h 45min
Reflection related to the contact sessions (lectures and group work)	24h 45min
Assignments	72,5 h
Pre-assignment	2 h
Learning logs	4 * 1 h = 4 h
Reading tasks	~ 4-10 pages / h ~ 95 pages = ~17 h
Essay	36 h
Peer-feedback on essay	8 h
Research article, own field	5,5 h
Other independent work (MyCourses etc.)	~19h
Total	~ 135h

Student workload estimation

Note: The coefficients given are simplified and an estimation should always be made according to teachers understanding of the material, group and other circumstances.

Mark to this column

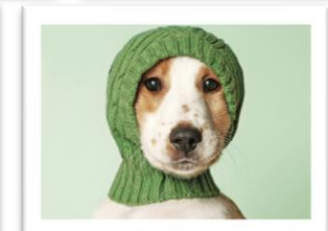
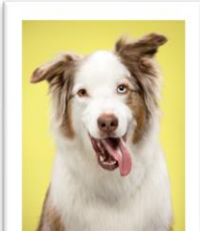
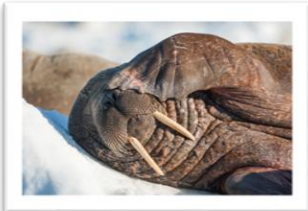
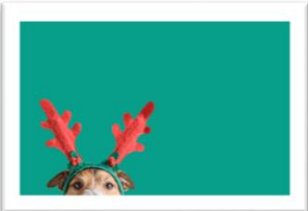
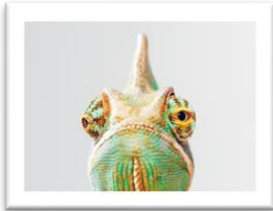
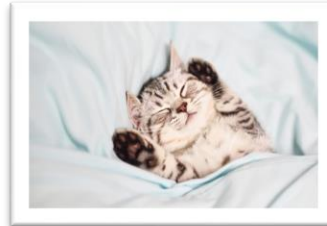
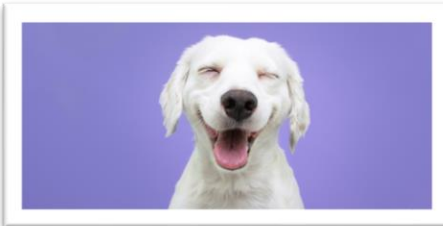
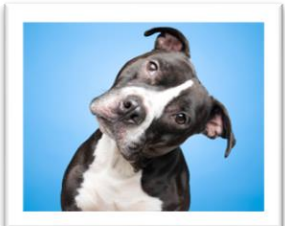
ECTS credit: 1 cr = 26.7 h

Task	Type	Workload / unit	Workload	Unit	Hours	Credits	NOTE
Reading (Word count in monography ca. 600/page, textbook 750/page)	Engage: Reading while also working problems, drawing inferences, questioning, and evaluating	4-10 pages / hour in native language. In a foreign lang. 60%		pages read	0,00	0,00	
	Understand: Reading to understand the meaning of each sentence	10-20 pages / hour in native language. In a foreign lang. 60%		pages read	0,00	0,00	
		20-50 pages / hour in native language. In a foreign lang. 60%		pages read	0,00	0,00	
	Survey: Reading to survey main ideas; OK to skip entire portions of text	4-10 pages / hour in native language. In a foreign lang. 60%		pages read	0,00	0,00	
		10-20 pages / hour in native language. In a foreign lang. 60%		pages read	0,00	0,00	
Writing (250 words / page)	Research: Essays that require ability to analyse and evaluate the target by own research.	4 h / page		pages written	0,00	0,00	
	Argument: Essays that require critical engagement with content and detailed planning, but no outside research	2 h / page		pages written	0,00	0,00	
	Reflection/Narrative: Essays that require very little planning or critical engagement with content	1 h / page		pages written	0,00	0,00	
Exam preparation	Recap of content and taking notes	4-5 h / 1 credit in exam		credits from exam	0,00	0,00	
Contact teaching + time reserved for individual work Individual work hours are calculated for every hour of teaching	Lectures, seminars	One additional hour of individual study per lecture hour		hours of contact teaching	0,00	0,00	
	Group work	2 additional hours of individual study per group hour		hours of group meetings	0,00	0,00	

Expectations & introductions

Choose "a card" that describes your expectations of the course.

Introduce yourself to the person/people near you and **tell how the card you chose represents your expectations.**





BREAK

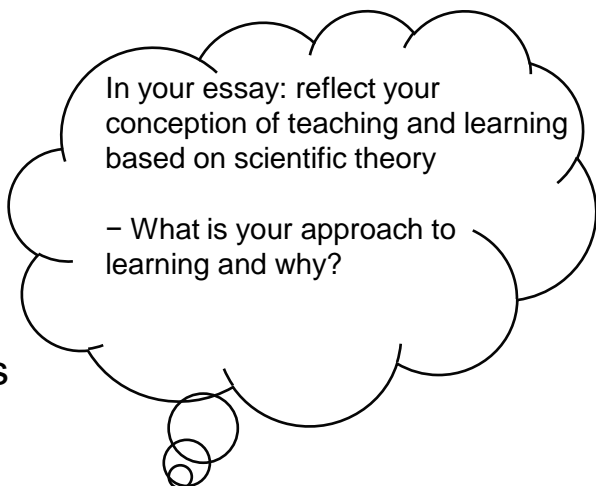
Learning theories

Pedagogy/ Learning theory / Theories of learning / Conception of learning / Approach to learning...

Learning theory / Theories of learning – a scientific theory explaining learning, based on research

Pedagogy – a field of study, that examines learning and the theories of teaching. It is the art, craft and science of teaching (Crabtree, Sapp and Licona 2009).

Conception of learning / Approach to learning – individual's conception of learning



In your essay: reflect your conception of teaching and learning based on scientific theory

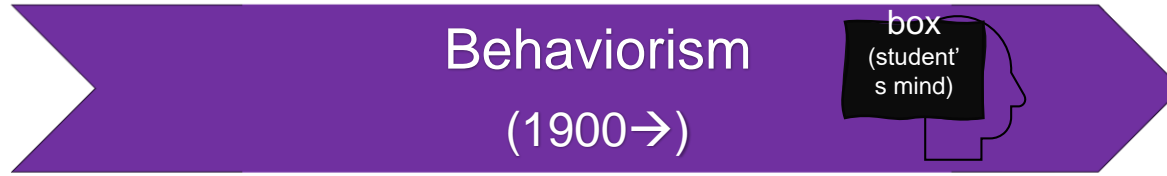
– What is your approach to learning and why?

References: Murtonen, M. 2017; Lindblom-Ylänne, S. ja Nevgi., A. 2009 ; Accardi M., T. 2010; Shah R. K.2021; Murphy 2008

Timeline: Learning theories



Behaviorism (1900→)

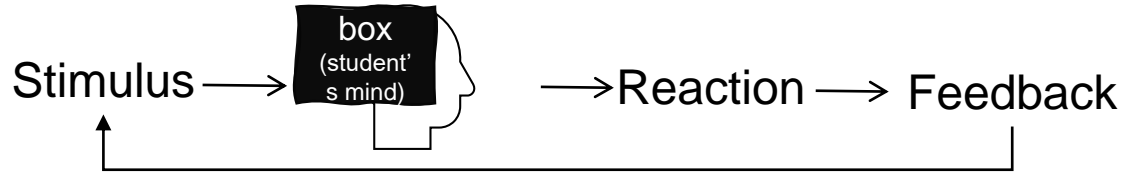


Key actor/role: teacher

Learner's role: passive, responds to stimulus through repetitive practice

Learning is seen as a change in external behaviour. Learning is something that can be observed and measured.

Learning process according to behavioristic learning theory:



Learning theorists: Pavlov (1903, 1927), Watson (1913, 1924), Skinner (1938, 1971)

Cognitive learning theory (1950→)



How? Cognitive learning theory replaced behaviorism as a dominant paradigm in 1950–1960. Black box of the human mind became criticized → it should be opened and understood.

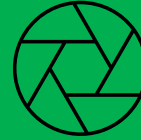
Student's role: an active data processor. Mind is seen as a computer that encodes and processes information.

Teacher gives lots of encouragement and positive feedback.

Learning is an internal mental process, a change in schema (mental model).

Learning theorists: Piaget (1896-1980), Miller (1956)

Constructivism (1960 →)



Learner's role: active, constructing knowledge

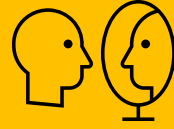
Learning and teaching should be designed in a way that builds on the students' background/previous knowledge.

Teacher's role: a facilitator who encourages students to discover principles for themselves and to construct knowledge and meanings (as an individual or as a group).

Learning is active, contextual and situational process.

Learning theorists: Piaget (1970), Montessori, Dewey

Humanism and self-theories (1970 →)



Learner's role: an individual who is ultimately motivated and wants to grow personally.

Teacher's role: a facilitator who encourages the students to have control of their learning and creates a safe learning environment where subject matter is relevant to the learner's interest.

Learning is a lifelong process and natural for human beings. Self-efficacy, self-control and motivation are essential for learning.

Learning theorists: Abraham Maslow (1970), Albert Bandura (1977), Carl Rogers (1969, 1983), Malcolm Knowles (2005)

Social learning theories & social constructivism 1980


Learner's role: an active learner

Teacher's role: a facilitator who encourages the students to have control of their learning and creates a safe learning environment where subject matter is relevant to the learner's interest.

Besides individual, **learning** is also seen at the level of community.

Other learning theories and pedagogical frameworks

- **Connectivism**
- **Neuroscience**
- **Transformative learning theory**
- **Experiential learning theory**
- **Collaborative learning**
- **Feminist pedagogy**
- **Positive pedagogy**
- **Universal design for learning (UDL)**
- **Critical pedagogy**
- **Montessori pedagogy**
- **Steiner pedagogy**



Five questions to learning theories

1. What is teacher's role?
2. What is student's role?
3. How learning happens?
4. What are the advantages of the theory?
5. What are the limitations of the theory?

Engeström, Y.

Learning theories affect and produce pedagogical approaches and methods.

- positive pedagogy, feminist pedagogy, drama pedagogy...
- flipped learning, problem-based learning (PBL), research-based learning...

“Learning theories are explanations of the learning process. It is not a matter of choosing or aligning to one theory or another but of using this understanding of learning as a process to make sense of the teaching designs available and guiding the use of these to best effect to secure learning outcomes”

Stewart, Martin 2021. Understanding learning. Theories and critique. In the book Hunne, Lynt & Chalmers, Denise (edit.) 2021. University Teaching in Focus. A learning-centred approach. 2nd edition. London: Routledge. p. 18

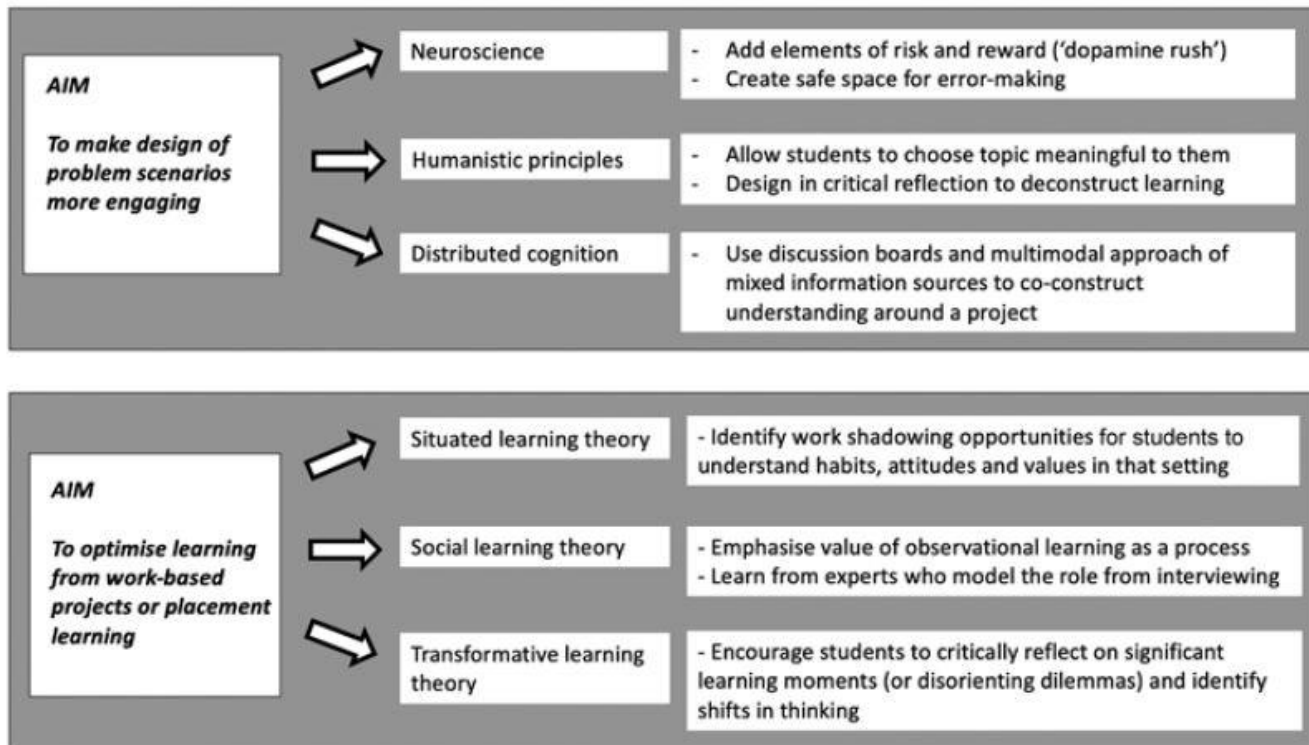
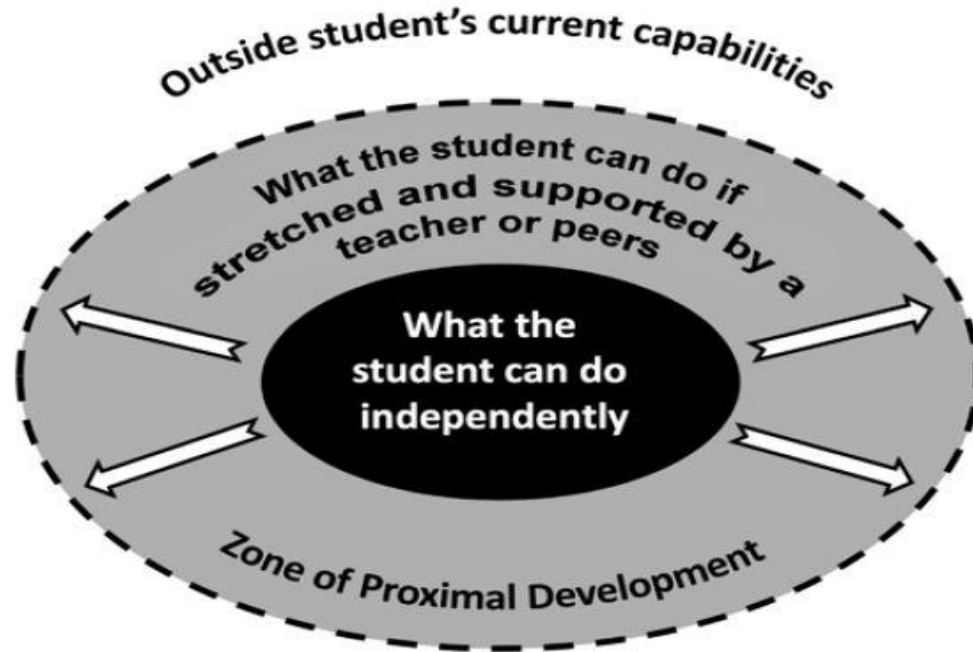


FIGURE 1.2 Examples of how general teaching and learning aims can draw from theoretical principles to inform teaching designs

Vygotsky's zone of proximal development



Theories-in-use ↔ Espoused theories

Theories-in-use = "worldview and values reflected in the behaviors that actually drive their actions."

Espoused theories = "worldview and values that people believe guide their behaviors."

- Espoused theory (julkiteoria) and theory-in-use (käyttöteoria) might differ from one another.
- Own view and teaching practice may conflict with one another.
- Individual's choices and behaviour are influenced consciously or unconsciously by the values and experiences that one has.
- Reflection is the key to be conscious about your own views.



Learning and teaching environment

Teaching practices

Teaching methods

Teacher's choices

Guiding skills

Multidisciplinary

Approach to teaching

Understanding the role of education in the past, present and future

Approaches to learning

Conception of the world

Knowledge of sustainability

Theoretical knowledge

Self image

Values

Idea of a human being

Ability to reflect

Conception of knowledge

Experiences

Understanding of the skill and its development

Understanding the role of education in society

Cultural, social, ecological, technological and societal environment

Pre-assignment

Pre-assignment: thoughts of learning

Learning is...

- “There is not a ‘single theory’ or way of learning.”
- Shift of perspective/ change in mind
- “– – simply building new neuronal connections in your brain. What makes the question ‘what learning is’ much deeper however, is the question how this can be achieved – –”
- an iterative process, complex and personal, dependent on various factors. (enhancing our knowledge of learning as a process can be effectively harnessed to optimize teaching designs.)
- more than just memorizing, builds understanding of certain concept, often happens in a process, takes time, needs repetition, motivation is important
- a multicentric process of trial and error, new understanding is built through active (tactile) learning (doing), iterative character, errors are important for deep learning
- Learning has different levels
- a continuous and active process both for the student and the teacher
- the need of versatile learning methods and different learning activities



BREAK

Your turn:

What is learning?

Snowball method: What is learning?

Step 1: (~20 mins)

- Summon up your pre-assignment. Tell your pair about your own approach to learning and teaching. *What is **learning**?*
- Discuss with your pair and consider together your conception of **learning**.
- Create a common mind map on **learning**.

Step 2: (~20 mins)

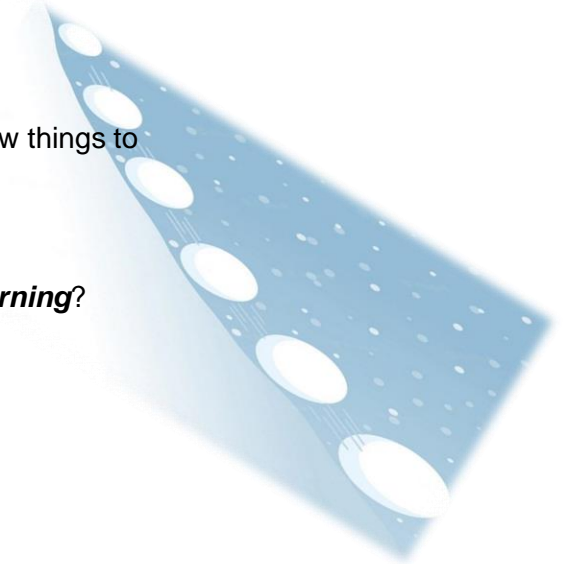
- Two pairs (2+2) combine their mind maps into a common one. You can also add new things to this new map. Focus on *what is **learning**?*

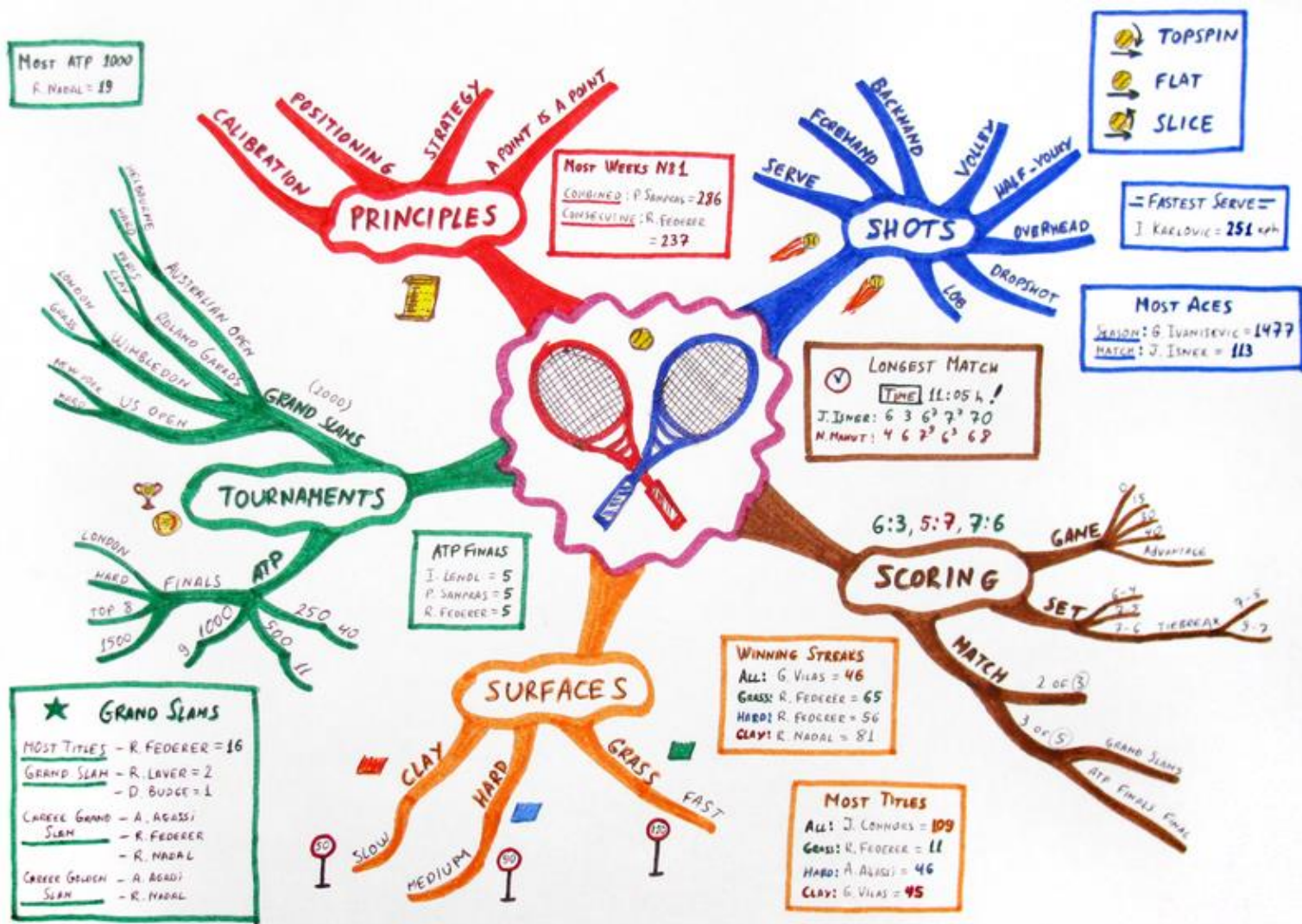
Step 3: (~20 mins)

- Two groups (4+4) combine discuss (and edit) the **mind** maps. Focus on *what is **learning**?*
- Prepare to present your common mind map to others.

Step 4: Wrap-up (15mins)

- Going through the maps together/ sharing the key ideas





Step 1: Working in pairs (20 mins)

To get started: **find yourselves a pair**, and then:

- Summon up your pre-assignment. Tell your pair about your own approach to learning and teaching. What is **learning**?
- Discuss with your pair and consider together your conception of **learning**.
- Create a common mind map on **learning**.

Step 2: Working in groups of four (20 mins)

- Two pairs combine (2+2) into a small group
- Discuss the topic together and combine your mind maps into a common one.
- Add new things to this new map. Focus on *what is **learning**?*

Step 3: Working in groups of eight (20 mins)

- Two groups (4+4) combine
- Discuss (and edit if needed) the mind maps. Focus on *what is **learning**?*
- Prepare to present your common mind map/ key ideas to others.

Step 4: Wrap-up (15 mins)

- Going through the maps together/ sharing the key ideas on *what is learning?*



Assignments

Assignments for the next session 19.3.2024



Learning log, DL 15.3.2024



Video: Watch Liisa Postareff's "Academic Wellbeing – The relations between teaching, learning and wellbeing of the learning community", DL 19.3.



Essay: **Get to know the instructions** and start writing your course essay, 1.0 DL 26.3.



Learning log 1, DL 15.3.2024 (MyCourses DAY1)

The aim of the learning logs is to focus and follow your learning and become aware of your thought processes. Learning log is a reflective writing concerning the topics presented in the previous contact session. It is a unique record of your thinking and learning during the course.

Each learning log's DL is always before the next contact session. The length of one learning log is around 0,5–1 A4-page or one hour of writing. Learning log is only visible for the teachers.

Questions for the 1st learning log:

- In alignment with the course learning objectives, what personal goals do you aim to achieve during this course?
- How did your conception of learning expand after the first reading assignment and the 1st session?
- What are your thoughts on the learning theories – does any of them speak to you?
- Which factors have the most important effect on your approach to teaching?

Course literature

Literature for the reading assignments and the essay:

- The article is from the book Hunne, Lynt & Chalmers, Denise (edit.) 2021. *University Teaching in Focus. A learning-centred approach*. 2. edition. London: Routledge. Available from Aalto Primo as an online edition (log in to get the access to the book):

https://primo.aalto.fi/permalink/358AALTO_INST/ha1cg5/alma999510057406526



Additional literature listed on MyCourses, e.g.,

- Tuomainen, Satu. *Supporting Students through High-Quality Teaching Inspiring Practices for University Teachers*. 1st ed. 2023. Cham: Springer International Publishing, 2023. Web.
https://primo.aalto.fi/permalink/358AALTO_INST/ha1cg5/alma999706530106526
- Journal of University Pedagogy (online journal which publishes review articles and writings focusing on teaching and learning in higher education).
<https://lehti.yliopistopedagogiikka.fi/journal-of-university-pedagogy/>
- Murtonen, Mari et al. *Opettajana yliopistolla : korkeakoulupedagogiikan perusteet*. Tampere: Vastapaino, 2017. Print.
https://primo.aalto.fi/permalink/358AALTO_INST/ha1cg5/alma997868754406526 (only in Finnish)

etc.

Feedback

Write at least one **positive** comment and one **constructive suggestion** on a post-it.

I like...

I wish...

Thank you!

