

# Introduction to curriculum development

Spring 2023

Curriculum development –  
pedagogical course

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# Teachers of the course



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# Today's session

9:15-9.35

**Welcome to the course!**

Schedules, practicalities, working methods etc.

9:35-9.50

**Getting to know each other**

9.50-10.15

**Different approaches to curriculum**

Discussion about the article (pre-assignment)

**BREAK 10 MIN.**

10.25-11.30

**Different approaches to curriculum continues**

Orientation and exercise

**BREAK 5 MIN.**

11.30-11.45

**Exercise wrap-up**

11.45-12.00

**Conclusion of the day**

Assignment for the next session

# Intended learning outcomes and content of the course



## After the course, you will be able to:

1. to discuss the different approaches of the curriculum in higher education
2. to identify the curriculum development process and practices and reflect on them in relation to their degree programme/major/minor
3. reflect the principles of constructive alignment in curriculum development
4. identify and apply tools in curriculum development
5. co-develop the curriculum together with the teaching team involved in the development
6. make a plan for continuous development



## Our main topics in the course:

- Curriculum in higher education, different approaches
- Constructive alignment in curriculum development
- Development process of the curriculum
- Co-development of the curriculum
- Tools for curriculum development
- Continuous development

# Curriculum Development –course timeline

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Session 1: Fri 14.4.2023 at 9.15-12.00: R028/R107 Väre  
**Introduction to curriculum development**

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Pre-assignment

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Session 2: Fri 28.4.2023 at 9.15-12.00: U401 Otakaari 1  
**Curriculum development process**

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Assignment

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Session 3: Fri 12.5.2023 at 9.15-12.00: U401 Otakaari 1  
**Tools for development**

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Decide the project topic by 5.5.23

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Session 4: Fri 26.5.2023 at 9.15-12.00: Y308 Otakaari 1  
**Co-develop the curriculum**

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Prepare for coaching

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Session 5: Fri 16.6.2023 at 9.15-12.00: U401 Otakaari 1  
**Reflection of the course and long-term development**

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Prepare project presentation

Submit report by 22.6.23

Work with the group development project

# Housekeeping



- Please, **feel free to ask** questions at any time during the sessions. Outside the sessions, feel free to contact the teachers with any questions you may have. Additionally, we have a link for anonymous, timely feedback: <https://presemo.aalto.fi/cdfeedback>



- **Group work** is a key element of this course. To get the most out of this course, hold on to your team agreement and participate in the shared learning experience.



- We are here together, learning from each other. Share your experiences and expertise and engage in discussions. **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.

# Feedback from last course:

## Especially liked:

- **Interaction, interactive assignments, sharing experiences**
- **Hands-on concrete tools**
- **Course project provided a tangible output**

## Suggested for the future:

- **More interaction with colleagues from other schools**
- **Co-ordinating teamwork**
- **More time to discuss**
- **Concrete take-aways from the teachers**

# Working methods and workload

- **5 x 3 hours (15h) joint contact sessions**
  - If you are not able to participate in the contact sessions, please inform the teachers in advance and agree on the substitute assignment
- **66h of independent and group working:**
  - Independent work individually and with your team *between the sessions* is also required for the successful completion of the course
  - Report about the group project to be submitted after the course
- **Methods:**
  - **Collaborative learning & learning by doing:** group project, group exercises, peer coaching
  - **Writing assignments:** project report
  - **Teaching discussions:** participation in contact teaching
  - **Supplementary readings:** pre-assignments

# Let's warm-up!

## Goal:

- to get oriented to the theme
- to get to know each other



Find people that have the same picture as you do.



Then, sit in the same table with this group of people.



Present yourself and tell one thing that you wish to learn during this course.

# What is a curriculum?

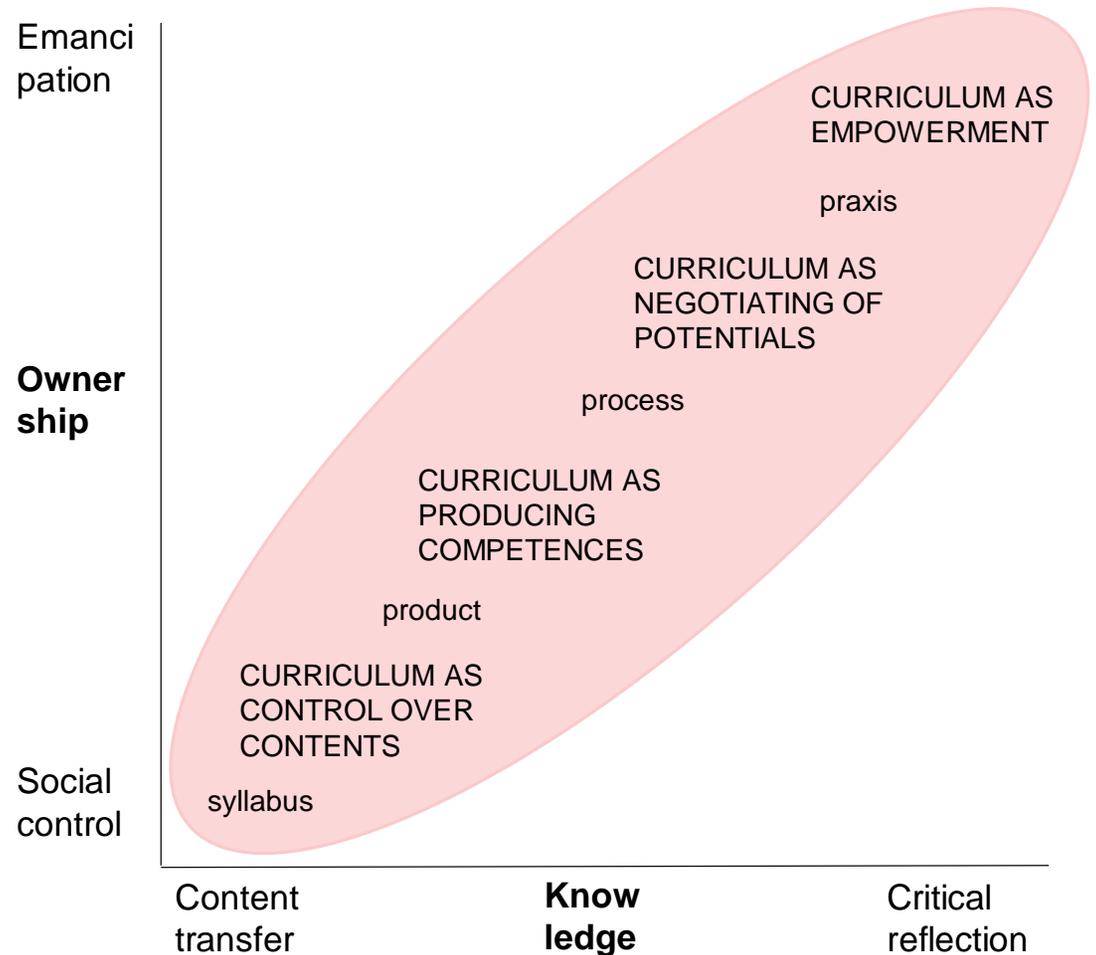
Reflections of the pre-assignment

# The article

## 1. First share your thoughts about the article in your group (15min.):

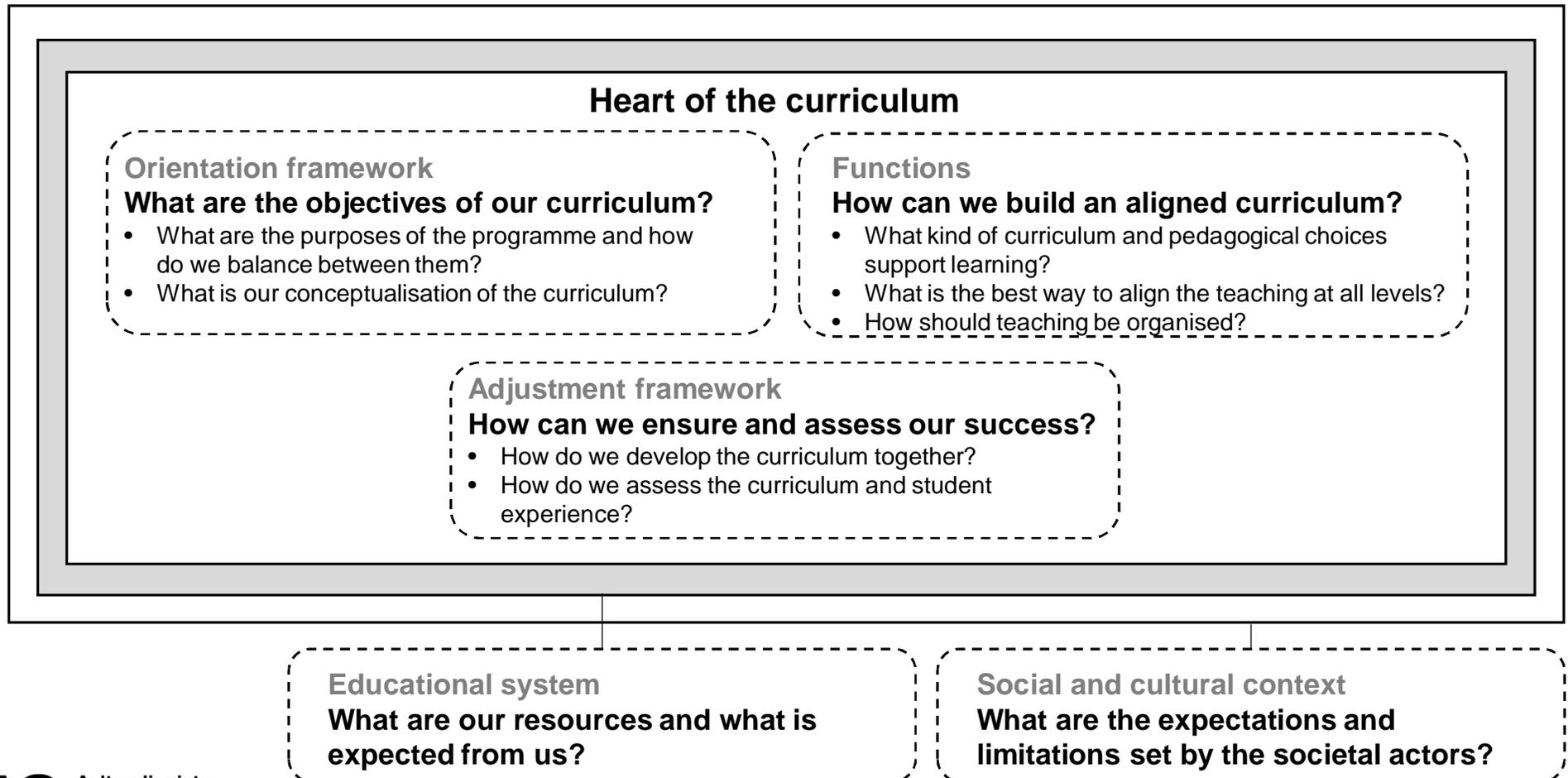
- How did you find it, was there something new? Was there something challenging?
- Were you able to identify the position of your programme's/ major's curriculum in the framework provided in the article?
- Were there some aspects that you would like to strengthen when developing the curriculum of your programme/major?

## 2. Then prepare to bring some main thoughts for the joint discussion with others (10min.)

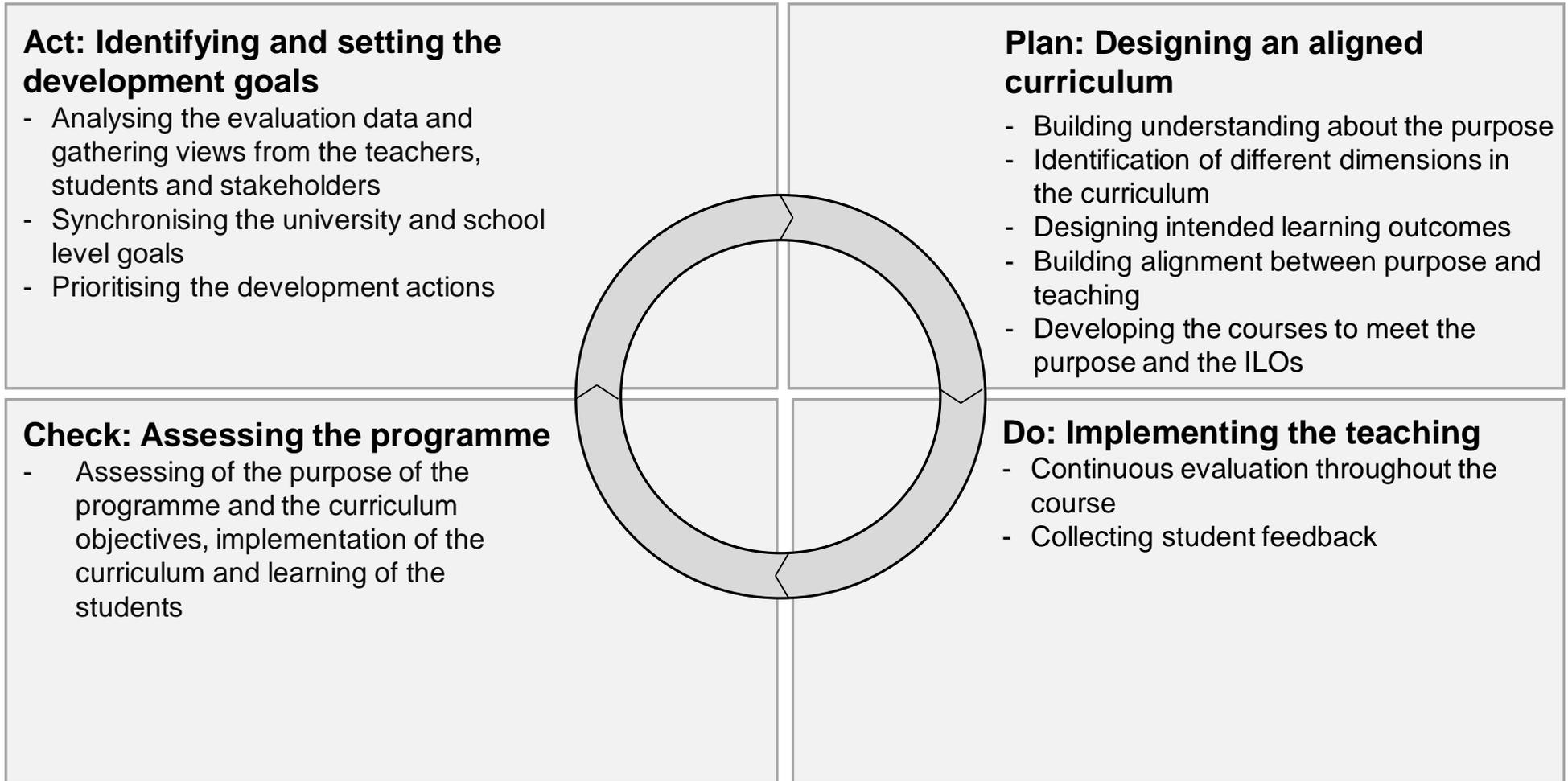


# Different approaches to curriculum

# Curriculum development as a process of building shared understanding



# Curriculum development cycle



# Aiming for a future-oriented, learning-centered and aligned curriculum

1

**Building understanding about the purpose** to clarify why the programme is important and how it responds to the changing needs of the field in the future

2

**Identification of relevant knowing, acting and being** supports designing curriculum that fulfills the purpose and aim of the programme.

3

**Designing intended learning outcomes (ILOs)** to summarise what students should learn and are able to do after graduation

4

**Building alignment between purpose and teaching** through ILOs and curriculum mapping

5

**Developing the courses to meet the purpose and the ILOs** (and relevant knowing, acting and being) through selection of teaching and learning activities that support deep learning.

# Curriculum development as a building shared understanding of the demands and interests

1

Building understanding about the purpose

Curriculum development is a process for negotiating the relation of teaching to research and society.

## Projection (by Bernstein 1996)

Construction of the curriculum based on the **external demands**, such as competence demands of the working life

## Introjection (by Bernstein 1996)

Construction of the curriculum based on the **internal disciplinary interests**, such as subjects to be taught

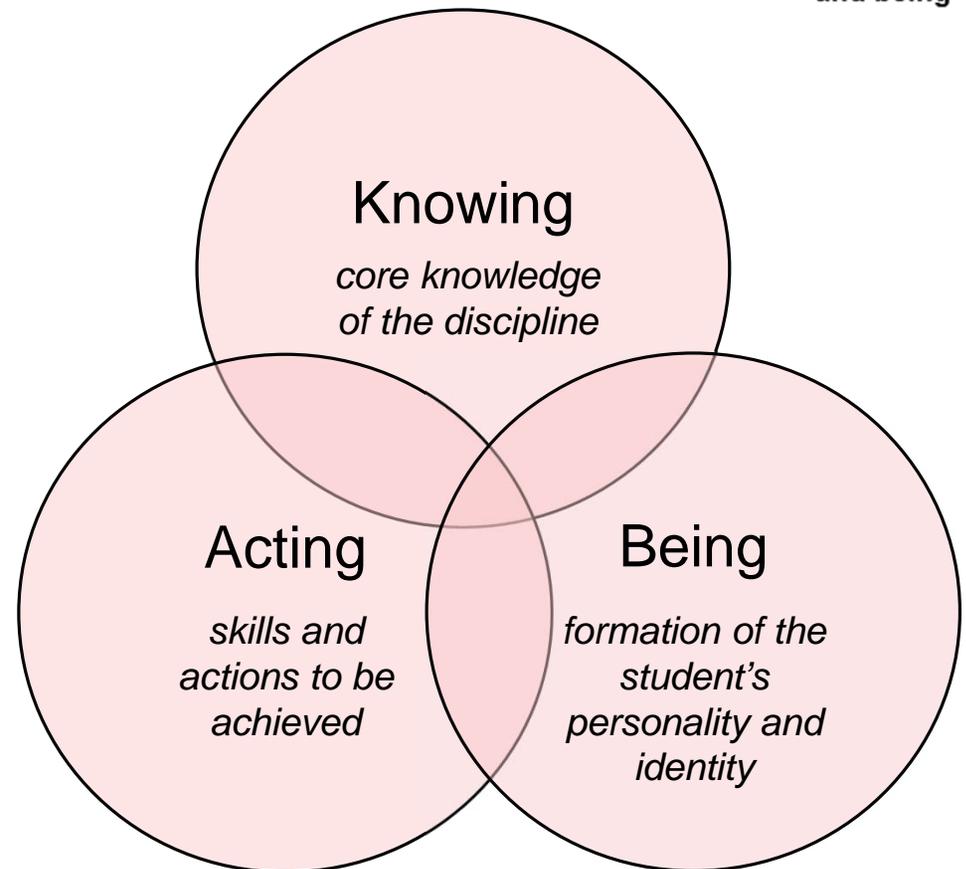
# Curriculum as building shared understanding about the curricular domains

2

Identification of relevant knowing, acting and being

- Framework highlights the importance of three domains of learning: knowing, acting and being
- Domains are interconnected
- Disciplinary differences on how different domains are present in the curriculum traditionally

(Barnett & Coate 2005)



# Curriculum development as a building shared understanding of the purpose



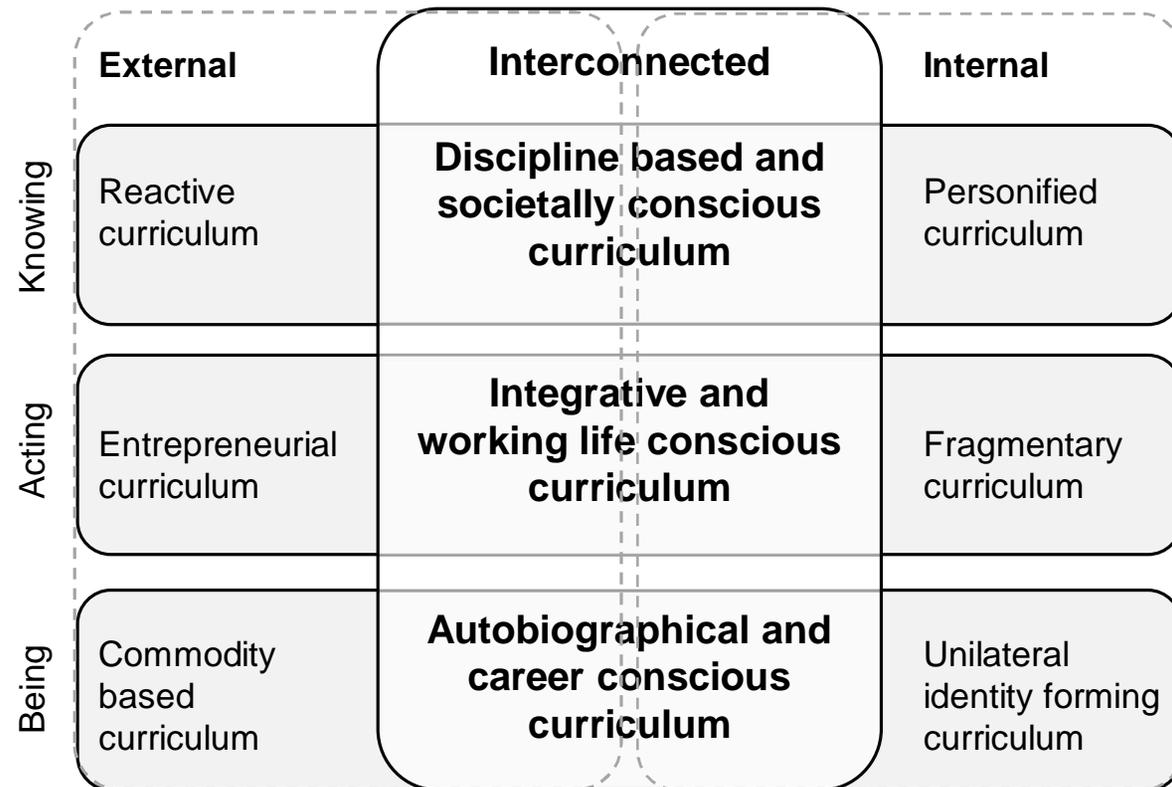
Building understanding about the purpose



Identification of relevant knowing, acting and being

Curriculum development is a process for negotiating the purposes and goals of education, e.g.:

- the relation of teaching to research and society
- the balance between different curricular domains



(Mäkinen and Annala 2010)

# Competency-based education and intended learning outcomes

- **Student-centered approach** to teaching and learning
- **Intended learning outcomes (ILOs)** describe what a student is expected to know, understand, or be able to do after completing a degree programme or course.
- **ILOs may cover different curricular domains** (knowledge, skills and attitudes / knowing, acting and being)
- **Teaching and learning activities are aligned** to support the achievement of the ILOs.
- **Suggested benefits:** Students know what is expected to be learned and how the learning is assessed, ILO's are a tool for building alignment, focus is in the student
- **Critique:** Not all educational goals can be reduced to predesigned learning objectives

# Suggested limitations



Designing  
intended  
learning  
outcomes  
(ILOs)

- **Critique: Educational goals cannot be reduced to predesigned learning objectives.**
  - Strict interpretation of ILOs turn all learning into “*know how*” (Posner 2004)
  - Not all valuable learning can be measured (Illeris 2013)
  - Emphasis on the learning recognized essential in the past – is that enough for the future unknown? (Biesta 2016)
- **Different interpretations of competence: being competent at something vs. being competent (Schaffar 2021).**
  - Is it useful to utilize only one concept for different types of learning?
  - **Competency-based curriculum has strengths, but the limitations need to be considered too.**

# Constructive alignment



Building  
alignment  
between  
purpose and  
teaching

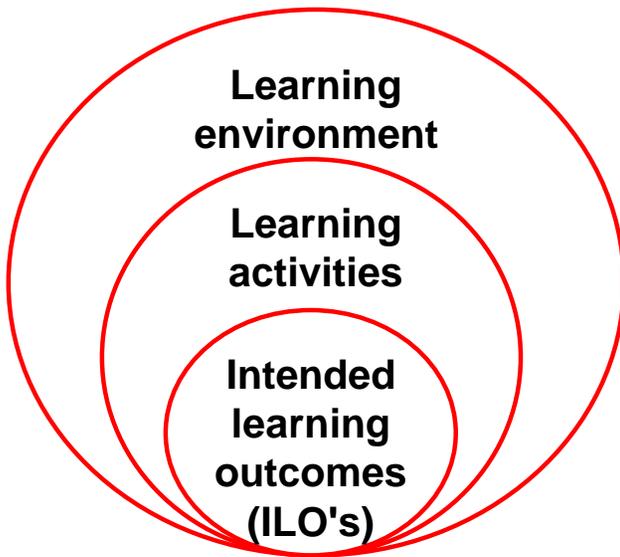
- **“Constructive”**
  - Comes from the constructivist theory: learners use their own activity to construct their knowledge as interpreted through their own existing schemata.
- **“Alignment”**
  - A principle: assessment tasks should be aligned to what it is intended to be learned and all components in the teaching system support each other.
- ✓ **Supports students in their process of constructors of knowledge and therefore deep learning is supported instead of surface learning.**
- ✓ **Implementation isn't a one-off process but a continuing action learning cycle of reflection, application and evaluation.**
- ✓ **Concerns all levels: individual teachers, programme, faculty etc.**

(Biggs&Tang 2011.)

# Constructive alignment

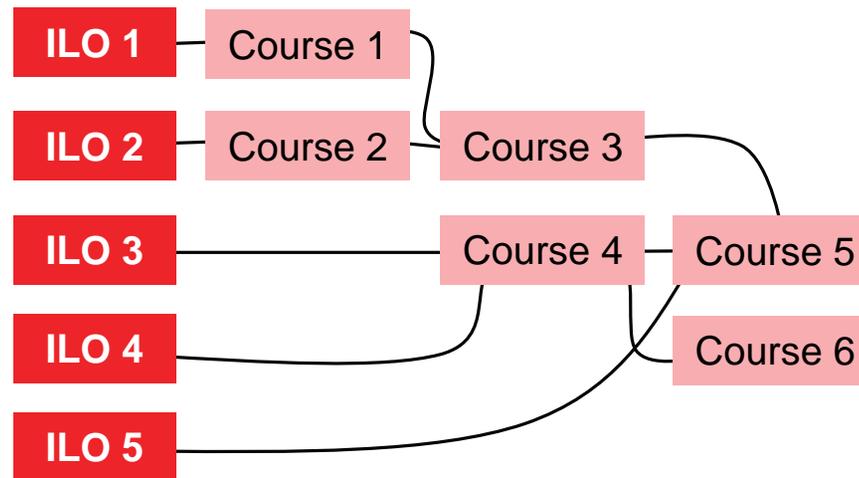
## In courses:

Alignment of intended learning outcomes, learning activities and assessment methods, and learning environment.



## In programmes:

Well-designed and aligned body of courses, where cumulation of knowledge and competencies have been considered. Teaching and learning methods, and study workload are aligned.



4

Building alignment between purpose and teaching

5

Developing the courses to meet the purpose and the ILOs

- VJ0            [@Myllyniemi Erika] sisällön puolesta voisin ottaa tämän sliden. Vai onko tässä jotain sanottavaa / alleviivattavaa, joka ei käy sliden sisällöistä ilmi?  
Välämäki Jukka, 2023-04-13T12:30:28.072
- VJ0 0        Liittyy toki siis edelliseen slideen, jolloin fiksumia olisi ottaa se myös. Tai pitää molemmat samalla puhujalla.  
Välämäki Jukka, 2023-04-13T12:31:21.137
- MEO 1        Ota ihmeessä! mietin tänään samaa, että aivan hyvin voisit puhua nämä :)  
Myllyniemi Erika, 2023-04-13T12:35:38.086
- VJ0 2        Nämähän ovat siistit slidet, tätä edeltävä varsinkin taitaa olla sun tekemä ja selkeän oloinen! Eli jos haluat myös sen pitää, niin sekin tietysti sopii. 🙏  
Sisällöt sinänsä ovat näissä ehkäpä tutuimmat ja siksi näiden kohdalla myös helpoin aktivoitua.  
Välämäki Jukka, 2023-04-13T12:39:50.552
- VJ0 3        Mut asennoidun siis näistä kertomaan ja sano, jos tulee fiilis, että toisin onkin parempi!  
Välämäki Jukka, 2023-04-13T12:40:48.864

# Aiming for a future-oriented, learning-centered and aligned curriculum

1

**Building understanding about the purpose** to clarify why the programme is important and how it responds to the changing needs of the field in the future

2

**Identification of relevant knowing, acting and being** supports designing curriculum that fulfills the purpose and aim of the programme.

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# Evaluation of the curriculum components

# Exercise with your own team

## Aim of the discussion:

- to share your findings of the pre-assignment
- to analyse and evaluate your curricula from the different perspectives
- start building a shared understanding about the strengths and main development areas of the curriculum / curricula

## Instructions:

- Continue discussing your curriculum and evaluate these aspects:
  - Description of the programme: purpose and educational goals
  - Curricular domains: knowing, acting, being
  - Programme-level intended learning outcomes
- Pick **one strength** of the curriculum and **one main development area** of your curriculum and prepare to **present these** as well as **your group** for other participants.
  - Add the key observations to the Analysis table & if you have multiple curricula, use different colored post-it notes for each one.

Time: 20min.

# Analysis of the different components of the programme/ curriculum

General notions		Strengths	Areas of development	<div style="display: flex; justify-content: space-around;"> <span style="background-color: green; color: white; padding: 2px 5px;">1</span> <span style="background-color: yellow; color: black; padding: 2px 5px;">2</span> <span style="background-color: red; color: white; padding: 2px 5px;">3</span> </div> Evaluation
<b>Purpose and educational goals</b>				
Are the educational goals / purpose clearly expressed?		<i>Purpose is attractive</i>	<i>The description is not aligned with the ILO's</i>	2
<b>Curricular domains</b>				
How does the curriculum support student learning in key areas of working life and research?				
What is the balance between the key dimensions/curricular domains?				
<b>Intended learning outcomes</b>				
Are the intended learning outcomes aligned with the purpose of the programme?				
Are the ILO's clearly expressed?				

Your programme(s) and names:

- 1 Working well
- 2 Some development needs
- 3 Not working, actions needed

# Development project and report

# Development project and the report

1. Based on the evaluation of the existing curriculum (**first session**), each group identifies their main curriculum development areas.
2. Based on the identified development areas, the team chooses a **small development task that the team will plan and complete during the course (second session)**.
3. Each team will **submit a report** in MyCourses after the course has ended. The report includes seven (7) sections (defined in the following slides).
4. The writing of the report requires **collaborative work**. The team needs to agree on the division of the work and commit to the agreement. The submission of the report is required in order to pass the course.
5. Each team will get feedback about their project from the **course teachers** as well as from other **course participants (fourth session)**.

# The development project

Team chooses a **small development task** to be **planned** and **completed** during the course

The task can be for example:

- ✓ **Trying a concrete tool** to develop curriculum, like developing intended learning outcomes, using curriculum mapping with the team or community
- ✓ **Developing practices:** designing an annual clock for development
- ✓ **Compiling theoretical framework** for the support of your development work

The development project will be briefly presented to other course participants during the last session of the course.

The team makes a **long-term plan** for other identified development areas and includes this in the report.

# Development project report

The report consists of the **following sections**:

- 1. Analysis of the current state of the curriculum:**
  - evaluation of the educational goals, alignment and the use of ILO's and the current curriculum development process and practices
  - reflection considering the different approaches to curriculum presented during the first session
- 2. Description of the identified main development areas of the curriculum**
- 3. Development project topic and description, background and justification for why you chose the topic**
- 4. Your reflection of the project: what happened and how did it go?**
- 5. Long-term plan for other identified development areas:**
  - description of the planned development practices, process and partners: who, how and when is involved in the development
- 6. Key findings from the literature**
- 7. Brief conclusions and key learnings from the course**

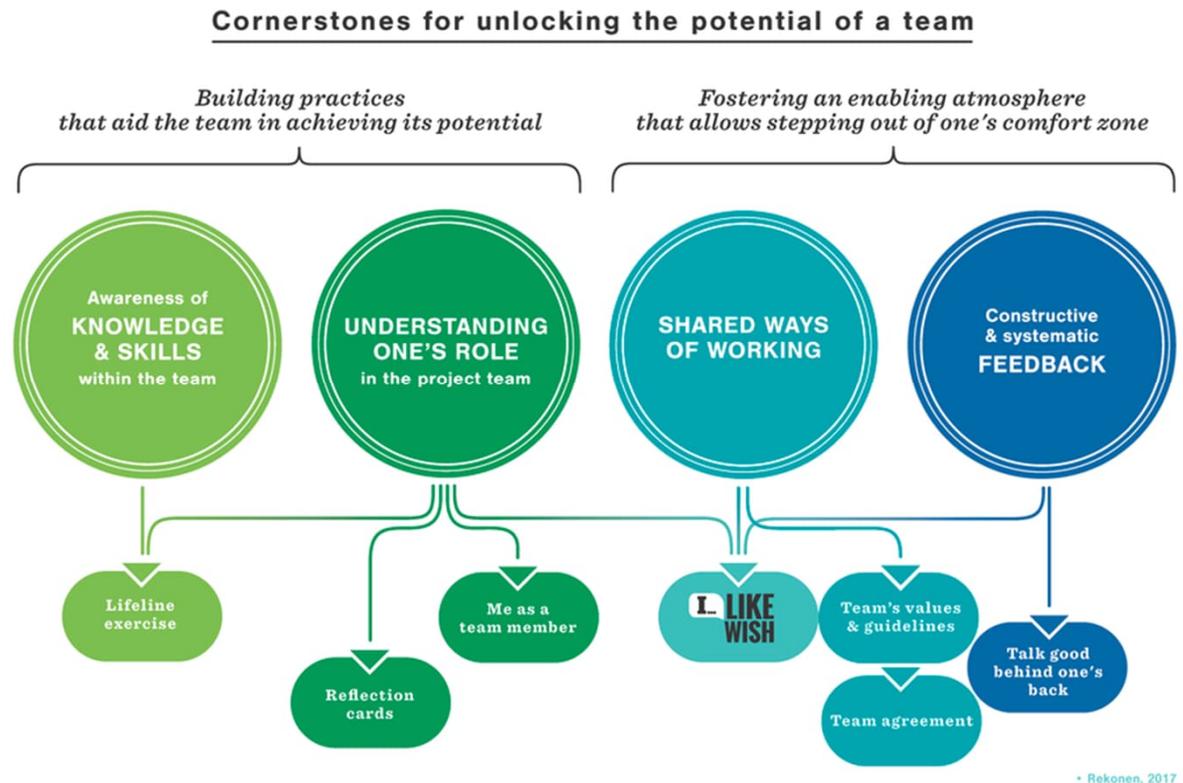
One of the group members will **submit the final report to MC by 22.6.2023** (template in MyCourses)

# Report template in MC

- Use the **report template** in MyCourses (section GROUP PROJECT)
- The recommendation is to write the report **along the course**:
  - method for structuring your reflections, discussions and learning
  - method for documenting your project work
- You will get **feedback** about your report during the course from the teachers as well as from your peers

# Team agreement and project plan

- Project begins with agreeing on the expectations, roles, and responsibilities of the team.
- If you need help in your team building and organization of the project, you can utilize the Aalto Teamwork First Aid Kit.



[Team agreement.pdf \(aalto.fi\)](#)

# Conclusion of the day

# Key takeaways

## ILO's for today:

1. to **discuss** the different approaches of the curriculum in higher education
  2. to **reflect** the principles of constructive alignment in curriculum development
  3. **co-develop** the curriculum together with the teaching team involved in the development
- **Curriculum development as an interactive process** of building shared understanding and as a dynamic process of negotiating the purposes of education.
  - **Conceptualisations of curriculum** affect what we focus on and who we engage in curriculum development.
  - **Curriculum development as a continuous process** of change and development (PDCA).
  - **Five practical steps of curriculum development**, aiming towards an aligned, future-oriented and student-centered curriculum

# Assignment for the next session

# Pre-assignment for the next session (1/2)

The new curriculum design instructions have been published in [aalto.fi](http://aalto.fi) (Programme Director's Handbook).

Before the next session, get acquainted with the instructions:

- 1. Can you find the timetable for the curriculum design process?**
  - Comparing to your own plans, how does the general schedule appear to you?
- 2. What are the goals for the curriculum development at the university-level?**
  - Are the goals familiar to you? Were you able to identify what is expected of you?
- 3. Can you find support for the development of your curriculum?**
  - What kind of support? What was especially useful for you? What was missing?

# Pre-assignment for the next session (2/2)

Everyone reads **one article** (find your name from below) and prepares to summarize the main content of the article and teach it to others in our next session with your fellow course participants.

- **GROUP 1: Curriculum as intentional and dynamic process in higher education** (Annala & Linden 2013)

Mirjam Bilker-Koivula, Augusto Cannone Falchetto, Namkyu Chun, Jonathan Harvey, Pauliina Ketola, Lasse Leskelä

- **GROUP 2: Engaging the academics** (Barnett & Coate 2005)

Anna Klemettinen, Peter McGrory, Maaria Nordman, Fabricio Oliveira, Nuria Solsona, Kuura Koivu

- **GROUP 3: How conceptualisations of curriculum in higher education influence student-staff co-creation in and of the curriculum** (Bovill & Woolmer 2018)

Matias Palva, Oscar Person, Stephan Sigg, Salla Sorri, Matti Vaaja

# References

Annala, J. & Mäkinen, M. 2010. Meanings behind curriculum development in higher education.

Annala, J., Lindén, J. & Mäkinen, M. (2016) Curriculum in higher education research. In J. Case & J. Huisman (Eds.) *Researching Higher Education. International perspectives on theory, policy and practice.* SHRE Society for Research into Higher Education & Routledge, 171–189. doi:10.4324/9781315675404

Barnett, R. & Coate, K. (2005) *Engaging the curriculum in higher education.* Maidenhead, England: Society for Research into Higher Education.

Biggs, J., & Tang, C. (2011). *Teaching for quality learning at university: what the student does (4th edition).* McGraw-Hill/Society for Research into Higher Education.

Hyland & Kennedy (2007): *Writing and using learning outcomes: a practical guide.*

Illeris, K. (2013). *Transformative Learning and Identity.* London: Routledge. doi: 10.4324/9780203795286

Jonnaert, P., Therriault, G. (2013) Curricula and curricular analysis: Some pointers for a debate. *Prospects* 43, 397–417. DOI: [10.1007/s11125-013-9285-7](https://doi.org/10.1007/s11125-013-9285-7)

Posner, G. J. (2004) *Analyzing the curriculum.* 3rd. ed. Boston: McGraw-Hill.

**Thank you for this  
session – see you in  
two weeks!**

**Please give your feedback about  
this session in Presemo:**

**<https://presemo.aalto.fi/cdfeedback/>**

