



Teaching Generic Skills in Higher Education – What Can the Teacher Do?

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Contents of the presentation

The presentation has three themes:

- Why do generic skills not develop by themselves?
- What can the teacher do?
- From individual courses to structures



Part I – Why do generic skills not develop by themselves?



Skill levels vary greatly

- **Key Finding of the KAPPAS Projects**
 - 44% of students remain at a satisfactory level in critical thinking, while 24% reach at least a good level.
 - Differences in starting level are explained by, among other things, educational background, matriculation examination, and socioeconomic background.
- **Pedagogical conclusion:** Students do not start and pursue their studies from the same starting line — teaching should take this into account.

(Ursin & Hyytinen, 2022; Kleemola et al., 2023; Ursin et al., 2026; Zahner et al., 2025; El Soufi & See, 2019; Roksa et al., 2017)



Why do students' generic skills vary?

Educational and socioeconomic background: prior educational experiences, educational background and socioeconomic status, first-generation higher education students / non-academic background

Student-related factors: prior knowledge and skills, self-efficacy beliefs, attitudes, effort, time spent studying, learning process, self-regulation and reflection skills

Factors related to the education system: pedagogical practices, level of challenge, interactive and activating teaching methods, explicit and integrated teaching, and constructive alignment of teaching

(e.g., Arum & Roksa, 2011; Abrami et al., 2015; Evens et al., 2013; Karaer et al., 2024; Kleemola et al., 2023; Hyytinen et al., 2023; Tuononen et al., 2022, 2023, 2026; Kilgo et al., 2015; Simper et al., 2018; Virtanen & Tynjälä, 2019; Ursin et al., 2021; El Soufi & See, 2019; Roksa et al., 2017)



Through purposeful pedagogy

- What is needed:
 - **Clear teaching about what the skill means** – the student must understand the content and meaning of the phenomenon.
 - **Diverse exercises and tasks targeted at the skill** – theory alone is not enough; the student must genuinely practise applying and using skills in different contexts.
 - **Diverse assessment and feedback** – guides learning and reflection.
- **Evidence:** Students who receive targeted teaching in critical thinking, demonstrate stronger critical thinking skills than students who do not receive such teaching (e.g., Abrami et al., 2015; El Soufi & See, 2019; Roksa et al., 2017).



What works?

- **Explicit teaching** works better than implicit inclusion in discipline-specific studies
- **Active practice, interaction, and collaboration** support the learning of generic skills
- **Integration of theory and practice** (integrative pedagogy) is particularly effective, especially in problem-solving and application skills
- **Feedback and assessment** support learning
- Transfer is not automatic → **linking generic skills across different courses** throughout the study path is needed

(Abrami et al., 2015; El Soufi & See, 2019; Virtanen & Tynjälä, 2019; Hyytinen et al., 2019, 2025).

Part II – What can the teacher do?



Constructive alignment of the course

- **DEFINE THE OBJECTIVES CLEARLY**– What should the student know and be able to do at the end of the course? How do generic skills appear in the course objectives?
- **ALIGN CONTENT WITH OBJECTIVES** – What are the most relevant and important contents to be taught in relation to the objectives? What are the students' prior knowledge and skills?
- **DESIGN TEACHING AND TASKS** – How should students work during the course so that the skills defined in the objectives can be achieved? What kinds of tasks give students the opportunity to practise generic skills?
- **ASSESSMENT AND FEEDBACK** – What kind of feedback do students need to support their learning? Do the assessment criteria align with the course objectives also with regard to generic skills? Does the student have the opportunity to reflect, under guidance, on their own thinking, conceptions, and skills?

(Hyytinen et al., 2025)



Where to start?

- **When a generic skill (e.g., critical thinking) is abstract:**
 - Break the skill down into sub-skills (e.g., argumentation, analysis, decision-making, reflection).
 - Determine the students' starting level (e.g., using the content and objectives of previous studies).
 - Make the skill visible in the objectives and link it to the content.
 - Choose activating methods and design tasks in which the skill is used in an authentic context.
 - Assess and provide targeted feedback. Or at least support self-assessment and reflection!



Example 1: Critical thinking in working with texts (Hyytinen et al., 2025)

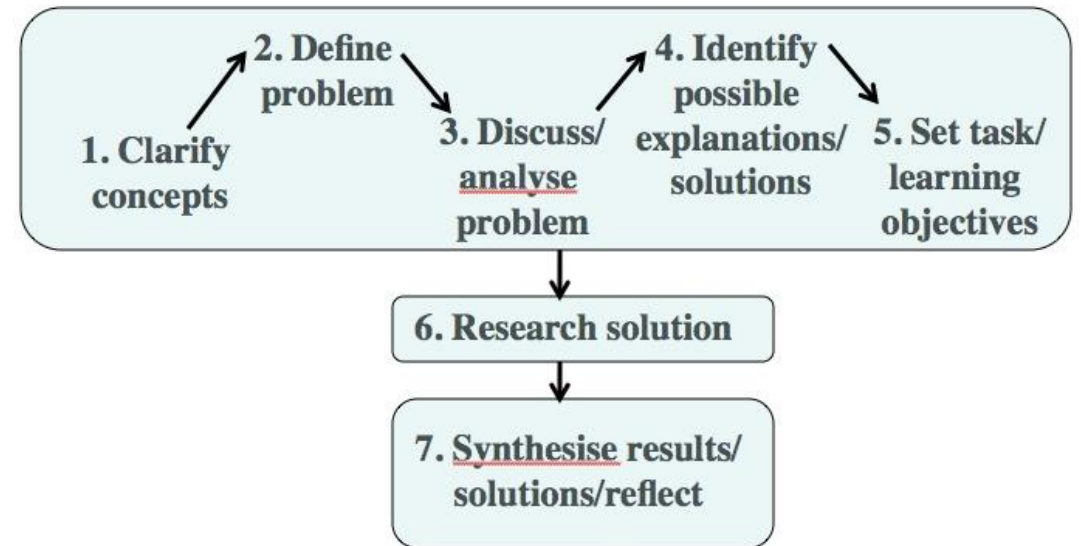
- **Guided discussion on the texts read:**
 - Encourage students to identify the components of argumentation:
 - What is the main claim of the text?
 - What are the key evidence or reasons?
 - What kinds of counterarguments are in the text – and how are they refuted?
 - What is left unsaid? What kinds of background assumptions are unstated?
- Also use non-scientific texts (news, blogs, opinions, reports) to support a wider perspective



Example 2: Problem-Based Learning

- **Genuine and multifaceted problems in groups:**
 - Students encounter the complexity of issues.
 - They search for and evaluate different information sources.
 - They refine the problems to be solved.
 - They construct well-argued solutions.
- **For the method to work:** the tasks must genuinely challenge the students' skills and conceptions; students need guidance and support — they should not be left alone.

The Maastricht Seven-Jump Method for PBL tutorials



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Example 3: Learning Argumentation Through Scientific Controversies (Archila et al., 2020)

- Four-stage structure:
 1. **Individual work** – one's own position before group work.
 2. **Group work** – constructing a shared position/perspective and justifying it with research evidence.
 3. **Whole-class shared discussion and debate** – handling different perspectives together.
 4. **Reflection** – examining the group's and one's own position on the basis of the shared discussion.
- **Why it works:** genuine controversy, individual engagement, gradually deepening examination, level of challenge, reflection.
- Scalable to different disciplines and group sizes – can be linked to existing content.

Part III – From individual courses to structures



What challenges the teaching of generic skills?

- **Students' starting levels vary greatly.**
- **Established pedagogical practices** do not always support the development of these skills: e.g., large group sizes, lack of time, traditions of the field of education, lack of collaboration between teachers, curriculum does not take generic skills into account.
- **Teachers' attitudes and conceptions can prevent teaching:**
 - Teaching discipline-specific knowledge may be considered more important than teaching various generic skills
 - The conception that generic skills develop by themselves without planned teaching
- **Lack of pedagogical competence can prevent teaching:**
 - Teaching experience and years of teaching alone are not enough. Pedagogical practices are more diverse among higher education teachers who have received pedagogical training
 - Teachers do not have the necessary pedagogical competence to integrate generic skills into teaching
- **Support from pedagogical leadership is missing**
(e.g., Arum & Roksa, 2011; Evens et al., 2013; Simper et al., 2018; Roohr et al., 2017; Prat-Sala & Van Duuren, 2022; Silva et al., 2023; Tuononen et al., 2023)



From individual courses to curricula

- **Pedagogical leadership.** Responsibility cannot rest on individual teachers. Leadership is needed to set shared objectives, allocate resources, and create structures that support the development of generic skills throughout degree programmes (Tuononen et al., 2023, 2025).
- **Curriculum-level planning.** A single course can cover only a few skills. Generic skills should be included in the entire curriculum and integrated with disciplinary substance – not taught as separate or detached elements (see Arum & Roksa, 2011; Virtanen & Tynjälä, 2019; Hyytinen et al., 2025).
- **Goal-oriented teaching and constructive assessment.** Assessment guides learning.
- **Teacher competence.** Teaching experience alone is not enough. Teachers who have received pedagogical training use a wider range of methods that support generic skills (Tuononen et al., 2025).



Generic skills are reflected in

The transition to higher education and its smoothness (e.g., Evens et al., 2013; Kleemola et al., 2022, 2023; Kleemola, 2023; Van der Zanden et al., 2019)

The learning of field-specific knowledge and skills, the quality of learning outcomes, and academic success (e.g., Arum & Roksa, 2011; Tuononen & Parpala, 2021; Burch et al., 2018; Tuononen et al., 2019a, 2019; Guerra-Macias & Tobon, 2025; Lopez-Varas et al., 2021) → **The construction of expertise in one's own field**

The transition to working life and its smoothness, as well as **satisfaction with the degree** (e.g., Tuononen et al., 2019a; Tuononen & Hyytinen, 2022; Zahner et al., 2022)



Summary

- **Generic skills are not a matter of permanent characteristics** → this requires knowledge, skill, and willingness/motivation!
- **Teachers have the opportunity to make a difference:** Guide and support students in doing tasks and activities in which key generic skills are used.
- Within lectures and seminars: interaction, discussions, and authentic problem-solving situations support the development of generic skills (Abrami et al., 2015; Tuononen et al., 2022).
- Diverse assessment and feedback practices → supporting the learning process
- **Supporting reflection:** Identifying beliefs, perspectives, attitudes, opinions, and ways of working helps the student move forward!
- **Teachers need support** from pedagogical leaders and pedagogical training (Tuononen et al., 2026)



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Thank you!

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