# STUDENT LEARNING OF GENERIC ACADEMIC SKILLS DURING UNIVERSITY EDUCATION

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# ORIENTATION

- Student learning of generic academic and domain-specific knowledge and skills during HE

- Learning-focused and research-based approach in education

- Development of degree programs and curricula

- Systemic use of research-based digital feedback tool and empirical evidence in supporting students, teachers and academic directors

- Discussion

# INTRODUCTION

- Recent interest on student learning and mastery of generic academic skills during HE among researchers, HE practitioners and employers

- Generic academic skills are critical for student learning and study success in HE, as well as employability and success in working life (Arum & Roksa, 2011; Tuononen et al., 2019)

- Changes in working life and careers → changes in higher education learning environment and pedagogies

  - HE institutions lack research-based teaching methods, digital technologies and pedagogical processes to embed student learning of generic skills in everyday instruction of academic subjects

  - HE institutions lack relevant tools to assess students' learning of generic skills that extend beyond domain content focuses

- There is a serious gap between students' needs and pedagogical practices (Hyytinen, Toom & Shavelson, 2019; Toom, 2017)

# WHAT KIND OF KNOWLEDGE AND SKILLS SHOULD BE LEARNED DURING UNIVERSITY EDUCATION?

**Domain-specific knowledge and skills**

- Deep understanding (knowledge, skills, competencies) of the domain

- Understanding of other disciplines (related to one's own)

- Research methods and methodologies applied within the domain

- Researcher expertise

- The importance and relevance of the domain within the society

**Generic academic knowledge and skills**

- Critical thinking

- Problem-solving

- Self-regulation skills

- Communication skills

- Collaboration skills

- Entrepreneurial skills

- Effective use of digital technologies

- Adaptivity, flexibility

(Tynjälä, 2003; AHELO, 2011-13; Kember, 2009; Hyytinen, 2015; Tuononen, 2019; Tuononen, Hyytinen, Hailikari & Toom, 2020)

# TEACHING AND ASSESSMENT METHODS IN LEARNING-FOCUSED DEGREE PROGRAMMES

- Learning generic academic skills during the studies is important – but is experienced challenging among students and teachers

- Learning of generic skills can be promoted through
    - Solving real, open, authentic problems
    - Problem-based collaborative project work
    - Multidisciplinary collaboration (e.g. real customers, companies, development projects)
    - Use of modern digital technology
    - Long-term collaborative processes
    - Continuous assessment and feedback during the work process
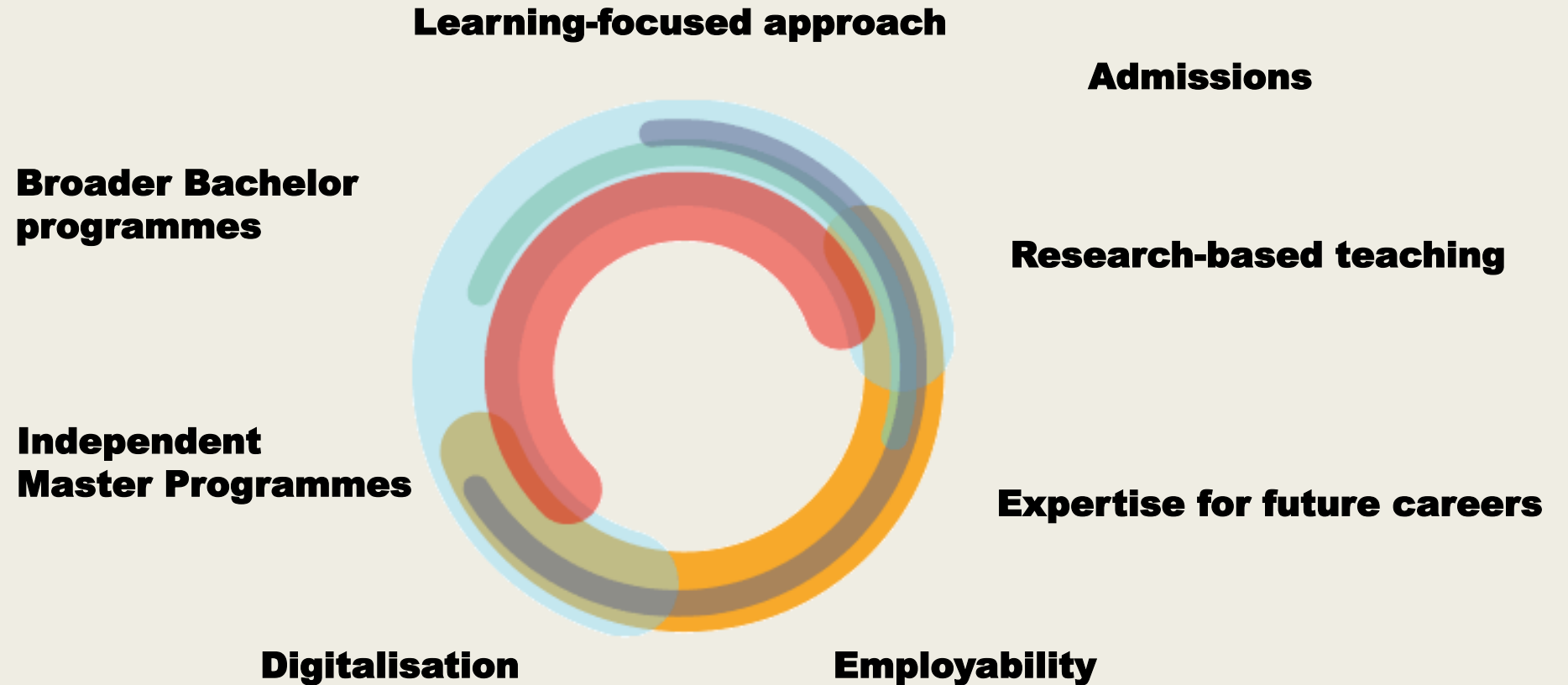    - Feedback from peers and collaborators

# LEARNING-FOCUSED, RESEARCH-BASED APPROACH IN EDUCATION AT UNIVERSITY OF HELSINKI

- Teaching is based on scientific research.

- **Empirical research results** on university teaching and learning are utilised when organising teaching.

- The core aim is **to promote learning-focused, deep and meaningful learning** that creates a basis for life-long learning and development of expertise.

- The aims, core contents, teaching methods and assessment methods need **to promote students'** understanding, learning and applying **scientific way of thinking**.

# WHY LEARNING-FOCUSED APPROACH IN DEGREE PROGRAMMES AND CURRICULA?

- Curricula and instructional activities need to support students' meaningful learning (Biggs, 1996; Biggs & Tang, 2007) of domain specific and generic skills and engagement to the scholarly community

- The relevance of degrees and students' knowledge, skills and competencies for the academic working life are necessary

- The academic working life has changed → the requirements of academic knowledge work have changed (cf. Paavola & Hakkarainen, 2005)

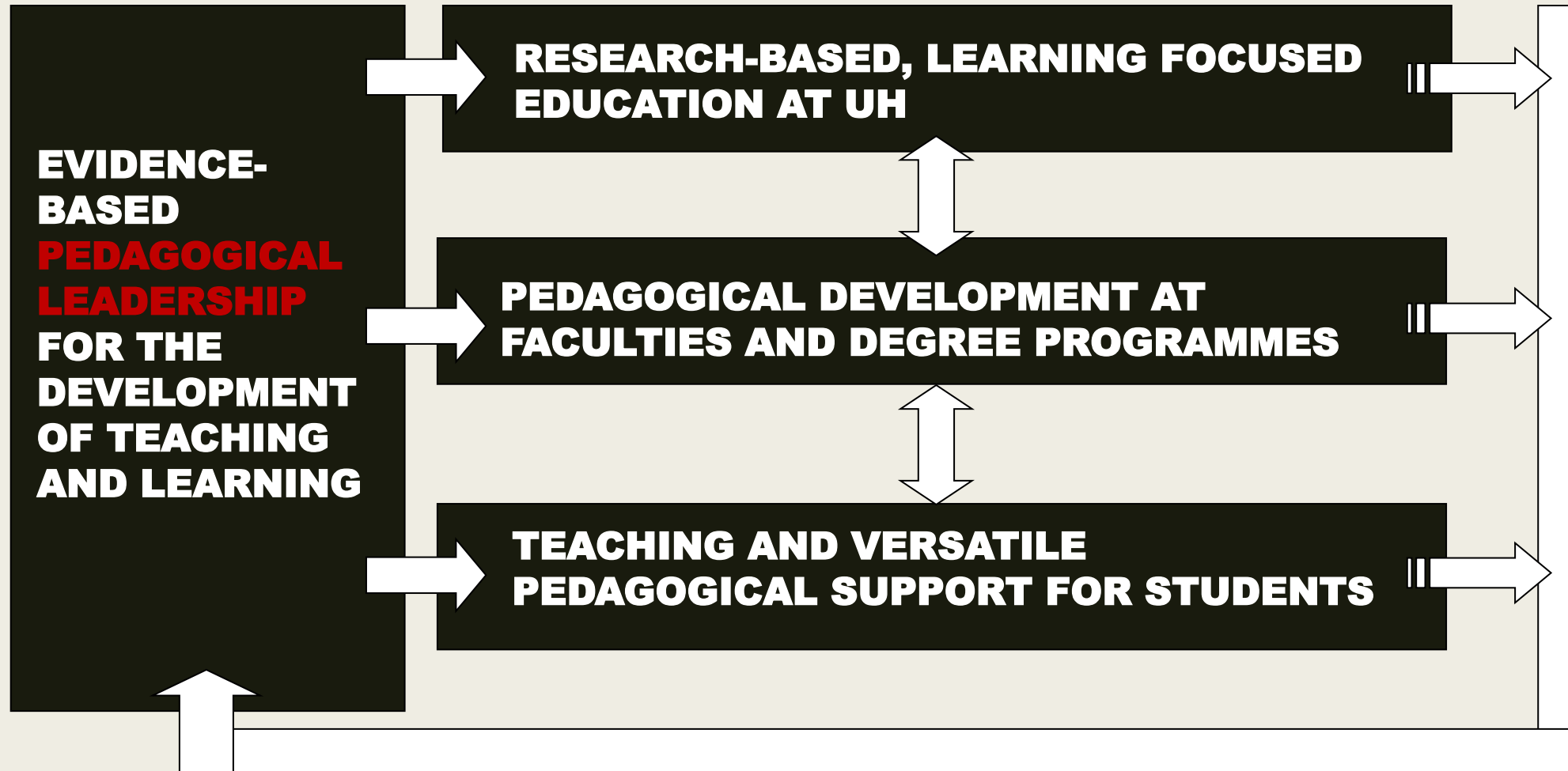- **Students need to learn both domain-specific and generic knowledge and skills during university education**

# DEVELOPMENT OF DEGREE PROGRAMS AND CURRICULA



Learning-focused approach

Admissions

Broader Bachelor programmes

Research-based teaching

Independent Master Programmes

Expertise for future careers

Digitalisation

Employability

# DEVELOPMENT OF LEARNING ENVIRONMENTS, DIGITAL TOOLS AND PEDAGOGICAL PRACTICES

■ Extensive development programme related to teaching and learning environments

- Pedagogical education

- Digitalisation projects

- Digital tools for students and teachers

■ In current pedagogical education for teachers

- How to teach with multiple digital tools?

- How to modify pedagogical practices in line with digital tools?

- How to utilise immediate evidence received from digital tools?

■ Pedagogical indicators related to learning process and outcomes to be utilized in improvements

# CONCLUSION: SYSTEMIC DEVELOPMENT OF LEARNING-FOCUSED AND FLEXIBLE EDUCATION AT UNIVERSITY OF HELSINKI

**EVIDENCE-BASED PEDAGOGICAL LEADERSHIP FOR THE DEVELOPMENT OF TEACHING AND LEARNING**

**RESEARCH-BASED, LEARNING FOCUSED EDUCATION AT UH**

**PEDAGOGICAL DEVELOPMENT AT FACULTIES AND DEGREE PROGRAMMES**

**TEACHING AND VERSATILE PEDAGOGICAL SUPPORT FOR STUDENTS**

# DISCUSSION: MULTIPLE DEVELOPMENTS FOR BETTER STUDENT LEARNING AT UNIVERSITY OF HELSINKI

- **Learning-focused** and **research-based** approach in education to support students' meaningful learning of domain-specific and generic knowledge and skills

- **Extensive development of degree programs and curricula**

- **Development of learning environments, digital tools and pedagogical practices via quality enhancement and feedback systems**

- **Versatile support for students individually as well as on course and program level**

# THANK YOU!

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