



**1st June**  
**09.30 - 16.30**

**#LELLE17**

**LELLE Regional Conference 2017**

**Learning to Learn: Beyond 2020**

**Open University of the Netherlands, Heerlen**

**Welten Institute**

Research Centre for Learning, Teaching and Technology

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# Learning to Learn: Beyond 2020



University of Pannonia  
[www.uni-pannon.hu](http://www.uni-pannon.hu)



Wroclaw University of  
Economics  
[www.ue.wroc.pl](http://www.ue.wroc.pl)



BEST Institut für berufsbezogene  
Weiterbildung und  
Personaltraining GmbH  
[www.best.at](http://www.best.at)



The Open University  
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# The Digital Age

**Two core factors:**

- 1. Globalisation &**
- 2. Worldwide Internet**



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Photo: <https://ec.europa.eu/digital-agenda/en/digital-life/education>

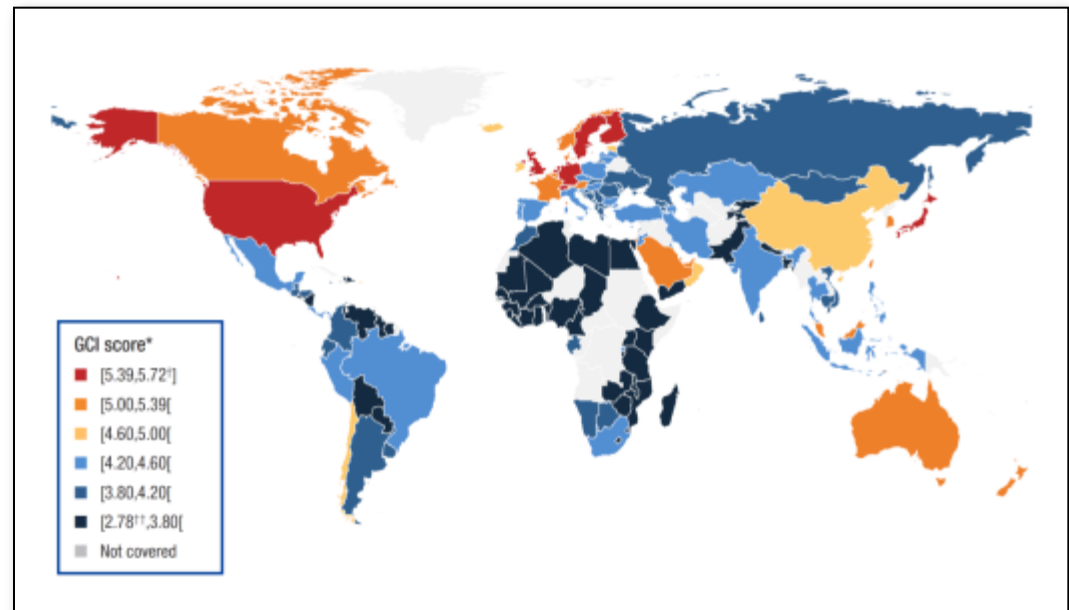


# Internationalization

**Global Competitions and societal changes**

**Close the gaps  
& open new  
opportunities**

**Challenges:  
Learn to Learn**



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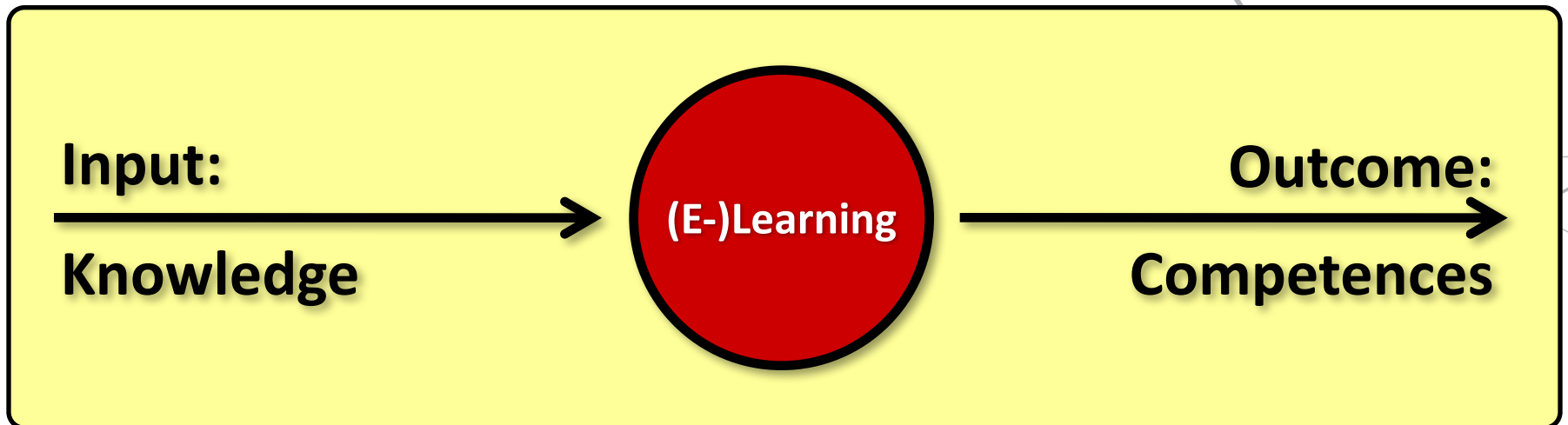
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# Learning cha(lle)nges

**Not knowledge but competences are required to meet future jobs and tasks still unknown today**

**Change from input to outcome orientation**



# Research Context

## 1. Technological Advances & Global Connectivity

- Borderless classroom
- Virtual workplace
- Employability
- Mobility

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# Research Context

## 2. Future Competences & 21<sup>st</sup> Century Skills

Social Skills	Meta-cognitive Skills	Cognitive Skills
<ul style="list-style-type: none"> <li>✓ Virtual collaboration</li> <li>✓ Cross-cultural competency</li> <li>✓ Social intelligence</li> </ul>	<ul style="list-style-type: none"> <li>✓ Novel &amp; adaptive thinking</li> <li>✓ Sense-making</li> <li>✓ Cognitive load management</li> </ul>	<ul style="list-style-type: none"> <li>✓ Transdisciplinary</li> <li>✓ New media literacy</li> <li>✓ Design mindset &amp; computational thinking</li> </ul>

(Davies, Fidler, & Gorbis, 2011)

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# Research Context

## 3. Future Readiness & Trends in Europe

- Europe: Education & Training 2020 strategy to promote growth & job
- Internationalisation in higher education
- Higher Education Institutions' commitment to provide training in practical & vocational contexts



# Research Questions

1. What are the core skill-sets a graduate would need to possess when he or she enters the workforce?
2. What would be the best practices (methods or tools) to develop and to evaluate the core-skill sets in our graduates?



# Methodology

## Stage 1: Phase 1

- Desktop research on core skills: critical thinking, problem solving & managing one's own learning
- Insight card to collect good practices on learning to learn skills (formal & non-formal educational institutions, as well as training agencies)



# Methodology

## Stage 1: Phase 2

72 structured interviews were conducted via face to-face interviews, Skype and other electronic forms over a period of three months (from Feb to April, 2016): 34 educational institutions, 19 non-educational institutions & 19 training agencies



# Methodology

Core aspects of structured interview	Interview questions on the three core skill-sets: critical thinking, problem solving & managing one's own learning
<b>Importance &amp; Implications of the three core skills</b>	How important is the skill (e.g., problem solving) in your organization? In which area(s) is the skill-set (e.g., problem solving) most essential? And why in those specific areas?
<b>Method(s) of assessing these skills</b>	What method(s) and tool(s) are used to identify potential employees? Please elaborate on the strengths and limitations of these means of assessments.
<b>Method(s) of developing &amp; evaluating these skills</b>	Do you offer any training activities for your employees (e.g., related to developing the ability to problem-solve)? If yes, could you elaborate on those solutions / training courses / modules / methods/ tools. What possible problems / limitations could emerge with regard to the solution(s)/ method(s)? How can they be countered or overcome? If not, why? What is the reason for not doing so?

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# Data Analysis

**Data Source: audio recording & field notes**

## **Five Thematic Categories**

1. Importance of the three skills
2. Areas/fields where the skill(s) is/are critical
3. Method(s) of assessing/ verifying the skills
4. Method(s) of developing the skills
5. Method(s) of evaluating the acquired skills

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# Findings

## RQ 1 Importance of core skill-sets at workplace

- “Learning to learn” encompasses capacity to leverage new experiences to explore uncharted territories: an important asset for progress & development in companies/ industries



# Findings

## RQ 1 Importance of core skill-sets at workplace

- Critical thinking: pivotal for effective and efficient project task planning and execution.
- Problem solving: intricately linked to critical thinking; more of a right attitude & mindset - an important aspect to develop & nurture.



# Findings

## RQ 1 Importance of core skill-sets at workplace

- \*Managing one's own learning: self-knowledge, and reflective learning, lifelong learning mindset & setting specific career goals as important determinants for progress at the individual & collective level

*Note: \*as most challenging to define*



# The Profiling Concept

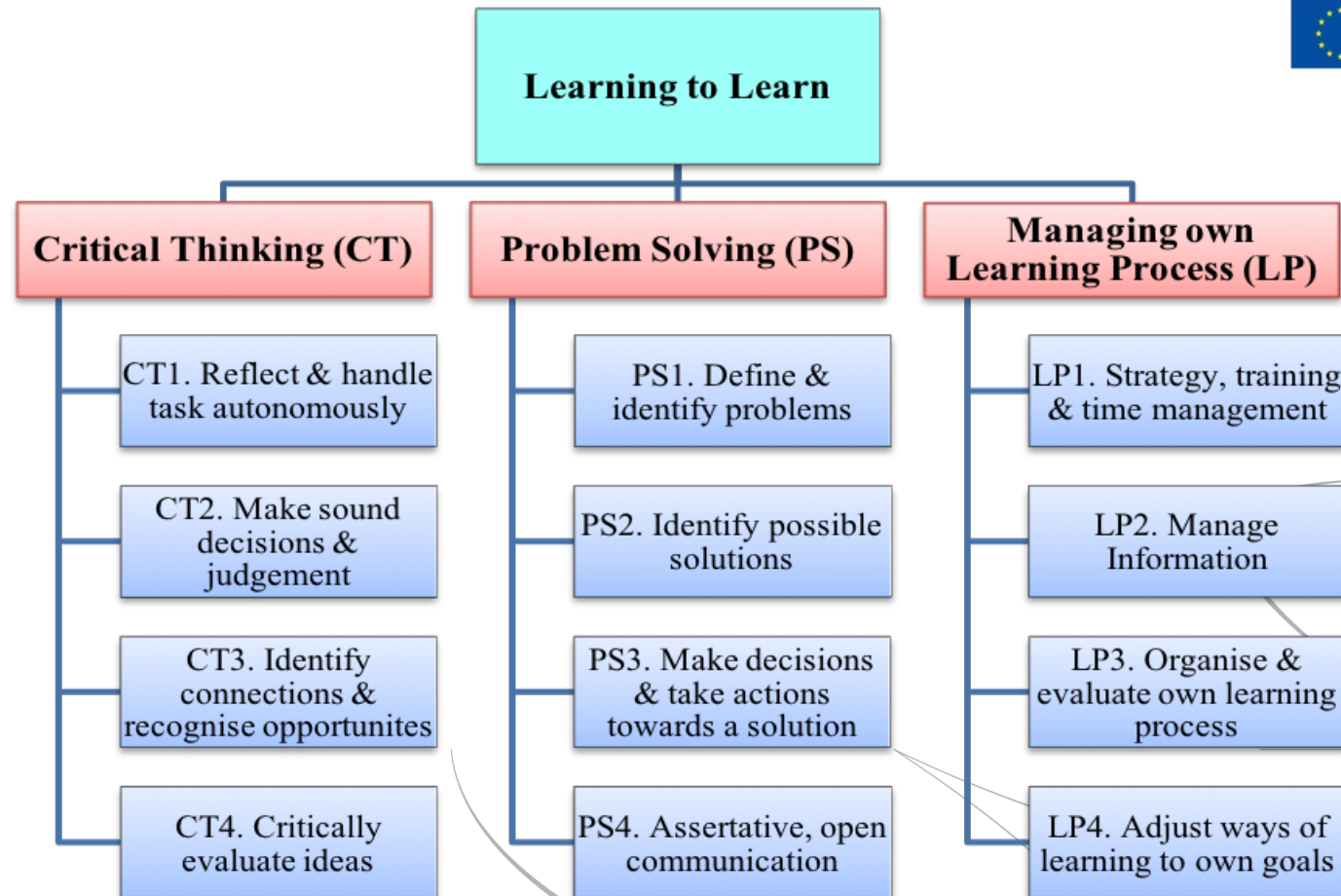


Figure 1: Three core skill-sets in Learning to Learn

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# Methodology

## Stage 2:

- Development of the **profiling tool**: 48 survey items covering the three core skill-sets (pre-post self-report measure)
- Design and development of **training materials**: objectives and lesson scenarios



# Lesson Structure

## Problem Solving

Activity	Objective	Method	Estimated Duration
<b>Starter</b>	Focus & Engage	<ul style="list-style-type: none"><li>▪ Plenary Discussion</li></ul>	30 min
<u><b>Hands-on</b></u>	Practise & Apply	<ul style="list-style-type: none"><li>▪ Case Study (Individual)</li></ul>	30 min
		<ul style="list-style-type: none"><li>▪ Plenary Discussion</li></ul>	30 min
		<ul style="list-style-type: none"><li>▪ Role Play (Group)</li></ul>	15 min
		<ul style="list-style-type: none"><li>▪ Case Scenario I (Group)</li></ul>	25 min
		<ul style="list-style-type: none"><li>▪ Case Scenario II (Group)</li></ul>	50 min
<b>Review</b>	Summarise & Reflect	<ul style="list-style-type: none"><li>▪ Self-evaluation</li></ul>	20 min
		<ul style="list-style-type: none"><li>▪ Plenary Discussion</li></ul>	10 min



# Methodology

## Stage 3:

Pilot the training materials (WUE & UP)

- Pre-post survey
- Train the mentors/ lecturers to implement the skill-based lesson materials in their seminars
- Provide individual coaching sessions to guide students to manage their own learning process



# Methodology

## Sample & Design

University of Pannonia (UP)

- 53 year one students from tourism course
- 2 Business Communication seminars
- 5 lecturers
- Skills adjusted to course tasks; methods built into the syllabus

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# Key Findings

Source: Students' portfolio & reflection questionnaire  
Activities/methods that helped develop critical thinking & problem solving skill-sets:

- Interactive seminars & gamifications
- Role-plays, case studies, learning scenarios
- Pair & group work
- Simulations



# Key Findings

Source: Feedback sessions with lecturers

+	-
New methods	Short time of the course
Lesson plan	
Scoring rubric	More time needed for preparation
Different topic, same aim	
Motivated students	Hard to distinguish problem solving and critical thinking

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# Methodology

## Sample & Design

Wroclaw University of Economics (WUE)

- 34 students
- 2<sup>nd</sup> year students majoring in Management ;  
3<sup>rd</sup> year students majoring in Logistics; students from Design Thinking Research Club
- Skills adjusted to exercises/ tasks + added extra activities into existing curricula

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# Key Findings

Source: Feedback from students

Activities/methods that they find useful

- Enjoyed the critical thinking (analysis of a text)
- Critical thinking rubrics applicable to any text
- Enjoyed problem solving activities in groups; creative learning environment
- Prefer defining a problem using a question to statement

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# Key Findings

Source: Feedback from students

Shortcomings on existing instructional programmes:

- Knowledge acquisition is not always as important as obtaining good grades
- Lack of systematic learning & external motivation: students only learn intensely prior to exams
- Insufficient collaborative tasks/ activities
- Quantitative assessment is preferred to qualitative
- Lack of students' diagnostic tests & analysis of students' progress to “assess” teaching methodology correctness

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# Key Findings

Source: Feedback sessions with lecturers

- Lack of specific subject area related to learning to learn overarching competence + core skill-sets
- Difficult to integrate materials into qualitative subjects
- Lack of measurement tools to track students' progress
- Lack of incentive for lecturers to incorporate the lesson materials into their classes



# Final Product

## LELLE Kit:

- Instructional manual
- Framework on integrating core skill-sets into existing curricula
- Mentor training concept & coaching method
- Lesson materials
- Profiling filter - survey
- Best practices

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# Thank you...

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# LELLE Regional Conference Feedback Questionnaire:

<http://bit.ly/LELLE17questionnaire>

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