Lille Learning Lab: a living lab for education, training, and research

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**Université de Lille**

- 78,000 students
- 9,900 international students
- 12,200 interns
- 7,200 employees

*largest amount of students in french universities*
The Université de Lille has initiated a major transformation:

- Conducting research for excellence
- Providing training for tomorrow’s jobs

**Rate of automation**

<table>
<thead>
<tr>
<th>Year</th>
<th>Human</th>
<th>Machine</th>
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<tbody>
<tr>
<td>2020</td>
<td>67</td>
<td>33</td>
</tr>
<tr>
<td>2025</td>
<td>53</td>
<td>47</td>
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through...

the transformation of the pedagogy

interregional cooperation

Cf. Chair on Technology-Enhanced Learning Spaces (KU Leuven)
Technology-Enhanced Learning Spaces
An iterative design process
“Educational design research is a genre of research in which the iterative development of solutions to practical and complex educational problems provides the setting for scientific inquiry” (McKenney & Reeves, 2013)
Technology-Enhanced Learning Spaces
Analysis & exploration
### Interviews with different user groups

- 40 teachers, teacher-researchers, pedagogical advisors, and instructional designers
- 10 students from different disciplines

### Needs that were identified

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<td>- development of oral expression skills &amp; collaboration skills</td>
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<tr>
<td>- hybrid learning</td>
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<td>- environment which facilitates the training and support of teacher-researchers</td>
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<tr>
<td>- learning spaces facilitating the research on learning and classroom analytics</td>
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Needs in line with international trends

1) Skills shift on the labor market
   (cf. World Economic Forum skills report)

Research on collaborative problem solving

Research on computer-supported collaborative learning

Top 10 skills of 2025

- Analytical thinking and innovation
- Active learning and learning strategies
- Complex problem-solving
- Critical thinking and analysis
- Creativity, originality and initiative
- Leadership and social influence
- Technology use, monitoring and control
- Technology design and programming
- Resilience, stress tolerance and flexibility
- Reasoning, problem-solving and ideation

2) Shift towards hybrid learning
(cf. World Economic Forum skills report)

Earlier research (e.g., Raes et al., 2020)
3) training and support of teacher-researchers

Improvement of internal training programmes

e.g. simulation-based learning
4) Research on learning and classroom analytics

Computer-supported collaborative learning

Collaborative problem solving
4) Research on learning and classroom analytics

Need for support tools (e.g., learning dashboards)

Definition of learning analytics

Multimodal learning analytics, collaboration analytics, classroom analytics...

Multimodal learning analytics (Di Mitri et al., 2018):
Lille Learning Lab
Design & implementation
Different locations

Campus Moulins (Law & political science)
Campus Pont-de-Bois (Humanities)
Campus UFR3S (Medical school)
Lille Learning Lab: design & implementation - Moulins Law campus

Moot court: groupwork

Moot court: simulation
Hyperflexible classroom

Pedagogical pharmacy
Comodality room
54m² / 16 students

Hyperflexible room
110m² / 32 students

Observation room
54m² / 12 students
Pont-de-Bois: A1.633

Barco WeConnect / Zoom integrated classroom

Project based pedagogy

Meetings, jurys...

A classroom for comodality & hybrid learning
Pont-de-Bois: A1.631

AV recording with cameras and microphones

Content or AV broadcast in other classrooms

Instant storage on USB sticks = reflexive activities

Collaborative activities & groupwork

Comodality / hybrid learning

A classroom for groupwork & simulation
Pont-de-Bois: A1.623

Audiovisual observation > A1.631/A1.633

Isolated observation rooms

Meetings without noise disturbance

A classroom for groupwork & observation
« The students were very dynamic and really liked the room, the devices, and the equipment. In my opinion, all of these aspects had an important influence on the students' involvement and motivation. I will use this room again for future courses! »

« The LLL room facilitates project work in a positive way. It enhances the interactions among students. »

« The built-in video and audio recording devices in the learning space are very qualitative, practical, and easy to use. I look forward to using this learning space in the near future for conducting experiments on collaborative learning. »
Sources


Thanks!

https://lillelearninglab.univ-lille.fr/en/