

Developing students' critical thinking skills through a philosophical approach

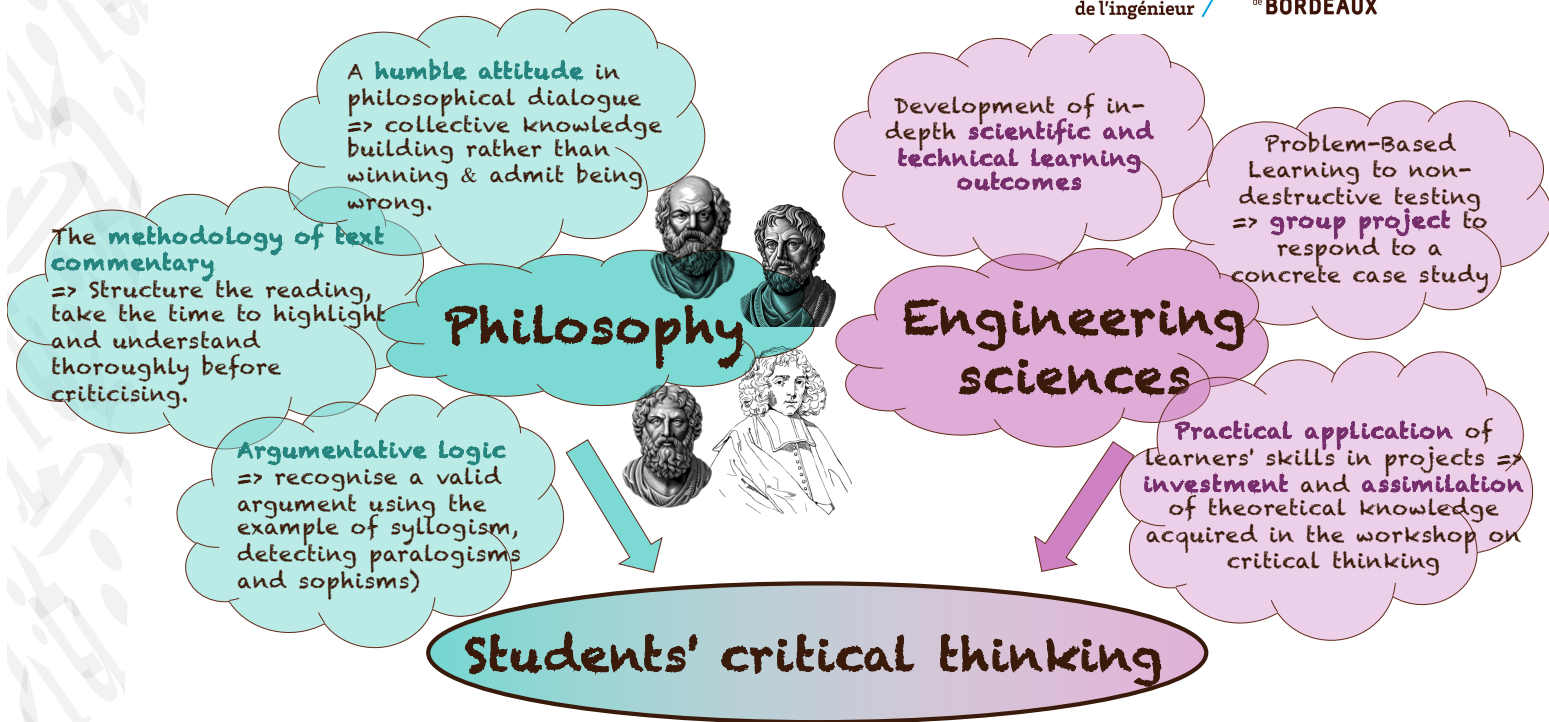


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Mini-project: Non-Destructive Testing Problem in an Applied Context

S47	S48-49	S50
<p>Problem analysis, brainstorming and Knowledge Gaps</p> <p>Independent Study and Synthesis in group</p>	<p>Project implementation => experiments and analyses</p> <p>Analysis + Drafting of the project report (initial version)</p>	<p>Oral presentation of the project/Answers to questions</p> <p>Finalisation of project reports based on various feedback</p>
<p>Workshop on critical thinking: Theory / role-playing and case studies in NDT</p>	<p>Written peer review report + Preparation of question session</p>	<p>Conducting the question and answer session for the expert group</p> <p>Finalisation of critical expertise reports</p>
<p>Unsupervised</p> <p>Supervised</p>		

Project => Inspired on Problem-based learning (PBL)

Work explicitly involving critical thinking

=> Collective construction of a high-quality final work

=> Having the right attitude, a method and the ability to think critically

Results & Conclusions

TEACHERS

- Best **investment** for all students
- Discussions during oral presentations
- Demonstrate **greater insight** into the subject matter and their work
- Much **better final reports**
- **Best results** (project and final exam marks)
- Greater **commitment** to the subject (only 2 out of 32 students scored below average in the final examination)

STUDENTS

- **88%** expressed the **usefulness** of the workshop
- **33%** spontaneously expressed their desire for **more workshops** of this kind
- **66%** spontaneously made the **connection** between their **student life, professional life and personal life**.

Philosophy: Structuring / decisive theoretical contributions + method for constructing one's critique

Importance of the oral discussion session :
Sequence of critical comments/questions during oral examinations, (empowerment?)

Project context :
Strong interest in explicitly mobilising them in a project context