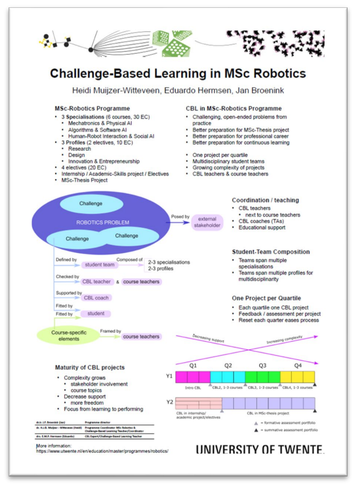
(preliminary) Evaluation CBL @ UT MSc Robotics

CBL Design/Coordination/Teaching/Evaluation: Heidi Muijzer-Witteveen, Eduardo Hermsen, Jan Broenink, Olga Karageorgiou

Evaluation methods first two CBL projects in the MSc Robotics programme:

CBL project 1 (Q1)
- CBL Coaches - Focus Group
- CBL Teachers - Interview
- Course Teacher - Interview

CBL project 2 (Q2)
- CBL Coaches - Questionnaire (preliminary results)
- CBL Students - Focus Group
- More to be completed



CBL Teachers

Good Practices
- 10 minutes feedback sessions with students after each project
- Visualisation CBL process & project assignments improves clarity

Pitfalls
- Careful and timely preparation and organisation of CBL integration in the programme is required

Lessons Learned
- Proper cooperation and interaction between different actors is crucial
- Minor on-the-fly adjustments improve the programme, without changing the base
- Combination programme management and educational support of added value

Course Teachers

Good Practices
- Visualisation CBL-part vs. course-part to show the 20% time allocation for CBL

Pitfalls
- Assignments cannot always be 1-1 transferred to the CBL projects

Lessons Learned
- Better performance of CBL students compared to students from other programmes (Q1)
- Be clear on which part of the course is dedicated to CBL
- Workload should not result in course work *plus* CBL
- Timely and detailed alignment with course teachers is needed

CBL Coaches

Good Practices
- No need for robotics specialists, but coaches with CBL experience
- Weekly meetings with other coaches and CBL teachers to shape and redirect
- (Natural) gradual decrease in support

Pitfalls
- Loose contact between students and CBL teachers

Lessons Learned
- Lowered the threshold for students
- Role of the coaches should be clear and discussed at the start of each project

Stakeholders

Good Practices
- Introduction of the *big idea* by external stakeholders inspires the students in their challenge definition

Pitfalls
- Differences in experiences and expectations (projects vs. CBL)

Lessons Learned
- Students were able to find their own stakeholders, but for some students the threshold is high
- Stakeholder involvement is appreciated by the students and motivates them

CBL in MSc Robotics started September 2022 with 32 students divided over 6 groups. The second project just finished. The big ideas for these projects were *waste* and *energy transition*. The courses involved were Systems Engineering, Control System Design for Robotics, and Robot Perception, Cognition & Navigation.

*The evaluation of the first two CBL projects within the MSc Robotics programme has not been finalized yet. The complete report will be published on the UT CBL website (https://www.utwente.nl/CBL/)

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