# Ready to face the world?

Lessons learnt from applying a Multi-Professional Shared Learning Test to first year Engineering and Science students at the Federal Institute of Technology in Lausanne, Switzerland



**Teaching Support Centre** 

Collège d'Humanités Social and Human Sciences Teaching

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		Discussion	
		Attitude	Result
		Willingness to	
Pre-test 1, 800 completed	Post-test	communicate	Positive and moderate





13 weeks of

lectures and inter-disciplinary group work

### **Motivation and Goals**

Science and Engineering programs are pressured to stimulate transferable skills such as the capacity for working with professionals of other scientific and nonscientific fields.

To investigate the impact and to document the efforts of our school to develop these skills, a pre and post test research measured changes in the readiness to communicate and to work in interdisciplinary groups.

**Central question of the study** Do students' attitudes and perceptions about collaborating with other professionals change after a

Interest for learning with and from students of other disciplines	Decreased optimism	
Team spirit to reach a common goal	Positive and moderate	
Readiness to carry out inter-disciplinary group	Moderate and remains moderate	

Conclusion If having clear goals and giving feedback matter to successfully carry out projects; reducing students' workload matters more.

This study shows that students' disposition to work in groups and to rehearse communication skills is

### group project?

## Results

**The answer to our question is NO**. Overall student attitudes are **stable** and **moderately positive, changes are not significant**.



#### diminished by heavy workloads and a tight schedule.

Some questions of our Multi-professional shared learning test. It is an adaptation of A.K. Mc Fayden, et al (2005).
Learning with other architects, scientists and engineers will help
me be a more effective member of a professional team.
Team-working skills are essential for all professional scientists, engineers and architects to learn.
Shared learning with other professional architects, scientists, and engineers will increase my ability to understand problems in my professional life.
Learning with engineering, science and architecture students before qualification would improve relationships after qualification.

8 Communication skills should be learned with other scientific,

architectural and engineering students.

- 10 Shared learning with other architects, scientists, and engineers will help me to be better at communicating with other people.
- **11** I would welcome the opportunity to work on small-group projects with other professionals.
- 13 Shared learning before qualification would help engineering,science and architecture professionals become better teamworkers.

McFayden, AK; et al. The Readiness for Inter-professional Learning Scale: a possible more stable sub-scale model for the original version of RIPLS. <a href="http://dx.doi.org/10.1080/13561820500430157">http://dx.doi.org/10.1080/13561820500430157</a>

Holzer, A.; et al I. Increasing the Perspectives of Engineering Undergraduates on Societal Issues through an Interdisciplinary Program, in International Journal of Engineering Education, vol. 32, num. 2(A), p. 1-11, 2016.

Tormey, R, et al. The Formal and Hidden Curricula of Ethics in Engineering Education. 43rd Annual SEFI Conference, Orleans, France, 2015.