



4th International CDIO Conference
ACTIVE ENGINEERING EDUCATION

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Hogeschool Gent
Gent, Belgium.

Proposal Template

Title: Multidisciplinary Business Studies and Competence Development in the Practice Enterprise

Authors and Affiliations

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Type of Presentation: (check one)

active paper (15-30 min)

poster session (60 min)

advanced workshop (45 min)

round-table session (60 min)

advanced workshop (90 min)

Short Description (50 words or less for the published program, to include the learning objectives for participants in your session)

The practice enterprise project is a learning-by-doing teamwork activity in which the idea is to give a realistic experience in starting up a company and running basic daily business operations in multidisciplinary environment. The learning objectives are to acknowledge the changing qualifications in a working life and to prepare the students to bear the uncertainty in order to this but as well understand their own active role when entering to the labour market.

Relevance to Conference Theme, Strands, and/or CDIO Initiative

Indicate by a tick which strand the presentation most closely relates to.

Application of CDIO to a wide range of disciplines

The involvement of industry

Development of professional competencies

Design-implement experiences

Supporting sciences and CDIO

Student involvement

Curriculum and programme design

Technology-enhanced learning

Assessment of professional competencies

Facilitating change in engineering education

Evaluating the impact of CDIO Programs

Active and experiential learning

Abstract (maximum one page)

The target audiences for entrepreneurial university studies are most often students of different fields of business studies, or economics; entrepreneurs however are not a group that consists only of business professionals, but a group of people from all walks of life. This paper reports experiences from educating multi-disciplinary student groups in entrepreneurship focusing on also to develop further the different interactive evaluation methods in use and the effort to increase the transparency and impressiveness in tools of assessment. The idea is that the students will be aware of their level of entrepreneurial competences and skills in the beginning of the course and the level reached after finishing the course. One challenge here is also to bring the competences and skills actively and understandably to students which are relevant to the real and changing qualifications in working life. Every year more than 200 students from several disciplines and cultures participate in the Practice Enterprise project in Turku University of Applied Sciences, which has been using this method since the year 2000. The Practice enterprise is a simulated enterprise formed by the students from different disciplines and with a different cultural background. There is a real enterprise effecting in the background of the simulated practice enterprise to support planning and to provide the real-life information for starting up phase. The actions, products and services of the practice enterprise are similar to the real business but not copies of it. Practice enterprises do business with each other in a global network of practice enterprises. The project lasts for 25-30 weeks and is divided into three phases: Start-up phase, business phase, and closing the books and evaluation phase. The student will get 15 ECTS when finishing the course.

The Practice enterprise project is based on applied problem-based learning and learning-by-doing approaches. Student groups are given problems and tasks with initial information and sources to the additional information to solve the task related to a given problem. Learning in a practice enterprise is based on self-directedness of individual students and interaction in a student group. The role of a tutor in the practice enterprise is more to act as a mentor and a consultant for the group than a traditional teacher. The assessment is also based on interactive methods; self-assessments, group-assessments, peer-assessments and process-assessments. The students also have at least two assessment discussions with the tutor teacher in order to acknowledge and develop their skills and competencies during the process in the practice enterprise.

The practice enterprise project is a learning-by-doing teamwork activity in which the idea is to give a realistic experience in starting up a company and running basic daily business operations. The project also brings together students from different fields of study (engineering, business, health care, transportation, etc.) that usually don't interact together in a learning environment. Multi-disciplinary and multi-cultural nature of the project brings together different knowledge and experience. The project is implemented in a close co-operation with local companies, banks and public organizations that bring more realism to cases, tasks and problems.

The objectives of the project in short are as follows:

- To increase knowledge about entrepreneurship
- To decrease the barriers of starting up as an entrepreneur
- To give understanding of basic functions and activities of real-life company
- To give skills for working in multi-cultural and multi-disciplinary teams
- To bring together students from different disciplines and cultures
- To acknowledge the level of entrepreneurial competences in the beginning of the course and after the course (according to student self-assessment versus process-assessment)
- To acknowledge the changing qualifications in a working life and to prepare the students to bear the uncertainty in order to this but as well understand their own active role when entering to the labour market.

Active presentation techniques

Describe one or two ways in which you intend to engage the audience (for example, paired discussion, personal response using clickers or flash cards ...). This section will play an important part in the acceptance of your proposal and in the time it is allocated.

Active presentation technique(s) to be used:

- **short slide-show**

- **interactive session with the audience to present the seven step model as a crucial part of the Practice Enterprise learning-process**

Facilities/equipment required (tick all those needed)

Computer projector (provided in all locations)

Overhead projector

Flip charts and pens

Clickers (personal response system)

Coloured flash cards

Post-it notes

Other (please detail)

Send all proposals electronically as MS Word or pdf files to jgaywood@liv.ac.uk on or before
December 7, 2007