Innovation and entrepreneurship – change agents in health care

Excerpts from the report to the Ministry of Education in Denmark on the project *Development and marketing of parallel and joint study programmes for occupational therapists and physiotherapists*

Working paper presented to partnership meeting in Helsinki, January 2011.

Faculty of Health, Care and Rehabilitation, School of Occupational Therapy and Physiotherapy Research and Development, International Department.

January 2011
Colophon

Date
17 January 2011

Working Party
Henrik Andersen, Lecturer, Physiotherapist, Master of Pedagogic Psychology
Patricia Behrend, Lecturer, Physiotherapist, Master of Management and Organisational Development
Stinne Fraas, Lecturer, Occupational Therapist, Master of Sport and Welfare
Hanne Skov, Lecturer, Master of Communications

Project Managers
Inger Schrøder, Dean of the Occupational Therapy and Physiotherapy Programmes
Michael Wrangel, Research and Development, International Unit

Steering Committee
Anette Helt Hansen, Head of Programme, Physiotherapy
Gitte Mathiasson, Head of Programme, Occupational Therapy
Inger Schrøder, Dean of the Occupational Therapy and Physiotherapy Programmes
Michael Wrangel, Research and Development, International Unit

The project was developed at the programmes of Occupational Therapy and Physiotherapy, Metropolitan University College, and funded by the Ministry of Education as part of its R&D Programme 2009.

Ministry of Education project number: 126281
Metropolitan project number: 3000018
# Table of Contents

*Colophon*  
Table of Contents  
Conclusion and working party recommendations  
1. About the project  
2. Innovation and entrepreneurship – change agents in health care
Conclusion and working party recommendations

Purpose and background
On 5 January 2010, the Ministry of Education agreed to fund project 126281 (working title: “Development and marketing of parallel and joint training programmes for occupational therapists and physiotherapists”).

The funding has allowed the programmes to analyse the potential for developing and establishing a module that will act as a parallel programme and will focus on innovation and entrepreneurship. The project is based on the programmes’ experiences of participating in the ESPIEW project in 2009.

Public institutions’ and private companies’ strategies and competence needs underpin the decision to develop a module focusing on innovation and entrepreneurship. The government, the regions and the EU all prioritise innovation and entrepreneurship in education – the general consensus is that the public sector needs to invest systematically in citizen-centred innovation. At the same time, surveys of potential employers suggest that the ability to operate in a constantly changing social and health service is a key competence for graduates. Practical experience suggests that this competence does not develop spontaneously, but that it needs to be facilitated and developed by the educational institutions, among others.

Based on the working party’s experiences, as well as collated data, surveys of potential employers and participation in networks, the working party’s considered opinion is that, it would be relevant to run both an interdisciplinary international module and a national module focusing on innovation and entrepreneurship from August 2011.

Partnerships
As part of the work to develop a parallel programme, partnerships need to be forged with institutions abroad. The strategic work to establish partnerships builds upon the lessons learned from ESPIEW. Priorities will include English-language skills and relating to the degree of social and cultural difference.

Against this backdrop, the working party and the steering committee have entered into a partnership agreement to develop a parallel programme on innovation and entrepreneurship, involving Metropolitan University College, Seton Hall University (New Jersey, US) and Metropolia University of Applied Health Sciences (Finland). MGH Institute of Health Professions (Boston, US) is expected to join in January 2011.

As agreed at the partnership meeting in Copenhagen in October 2010, the Occupational Therapy and Physiotherapy programmes at Metropolitan University College are currently
drawing up a draft module description. It is envisaged that the partners will meet in Helsinki in January 2011 to continue work on the detailed co-operation contract and the description of the joint module.

**Organisation**

The working party recommends that, from August 2011, Metropolitan UC offers the following two options for students on Module 13:

- An international parallel programme: Innovation and entrepreneurship – change agents in health care
- A national module: Innovation and entrepreneurship – change agents in health care.

*The international module* can be developed and run as a parallel programme in which students replace part of their programme with studies abroad. The working party is of the opinion that in the longer term it would be interesting to pursue work on the development of a joint programme, possibly with a view to establishing a Master’s programme that focuses on innovation and entrepreneurship in the health sector. The partners will take turns at hosting the international module, which will involve teacher exchanges. It will be offered once a year. It is envisaged that it will run for the first time at Metropolia University of Applied Sciences in Helsinki in August 2011.

Classes on the international module will consist of 40 students from Denmark, Finland and the US. Metropolitan University College will select student participants on the basis of English-language skills and an equal split between the programmes.

There is no requirement for financial reciprocity between partners in the exchange process. It is therefore incumbent upon the individual programmes to source potential funding for participating students and teachers. To finance the partnership, it has been decided that the partners will submit joint applications for funding from the Atlantis programme. The working party recommends that the international parallel programme be recorded separately on the student’s Danish Diploma and Diploma Supplement. We also recommend that students who participate in the international course be offered an intensive course in spoken English. In addition, students on both the national and international modules at Metropolitan University College will be required to improve their oral and written English.

The working party recommends that *the national module* also be placed in Module 13 of the ordinary programme, and that it runs twice a year. The module will be in English and will endeavour to replicate the content of the international module. The purpose of running the module in English is partly to offer students the chance to engage in activities that are “international at home”.
**Interdisciplinary perspective**

The working party recommends that both the international and the national module are made available to all students on health programmes.

In addition to the interdisciplinary environment generated by the students, the national module will benefit from a national network of other educational institutions, which collectively form a complementary, innovative environment.

**Purpose of the module**

- To develop different understandings (both theoretical and practical) of innovation and entrepreneurship in the public sector
- To provide insight into methods of facilitating and implementing innovative solutions in the health sector
- To equip participants with the competences to act as change agents in their work as health professionals.

**The working party and steering group’s recommendations**

- Based on the working party’s experiences, as well as data collated, surveys of potential employers and participation in networks, it would be relevant to run an interdisciplinary international as well as a national module with a focus on innovation and entrepreneurship from August 2011.
- The working party and steering committee have entered into a partnership agreement to develop a parallel programme on innovation and entrepreneurship that involves Metropolitan University College, Seton Hall University (New Jersey, US) and Metropolia University of Applied Health Sciences (Finland). MGH Institute of Health Professions (Boston, US) is expected to join in January 2011.
- It is recommended that the international module be hosted by the partners in turn and include teacher exchanges. The international module will be offered once a year. It is envisaged that it will run for the first time at Metropolia University of Applied Sciences in Helsinki in August 2011.
- It is recommended that both the international and the national module be made available to all students on health programmes.
- The working party is of the opinion that it would be interesting in the longer term to pursue work on the development of a joint programme, possibly with a view to establishing a Master’s programme that focuses on innovation and entrepreneurship in the health sector.
1. About the project

Objectives
The aim of the project was to analyse, develop and establish:

- a programme that runs in parallel with other occupational therapy and/or physiotherapy programmes in Europe – e.g. weighted towards welfare innovation
- joint programmes with other countries in Europe, as well as Canada, the USA, Hong Kong and Japan – e.g. Professional Bachelor of Welfare Innovation.

Expected results cf. the project application
- Participation in welfare innovation activities
- Results of analysis of specific programme potential for:
  - parallel programmes
  - joint programmes
- Employer and stakeholder analyses in relation to parallel and joint programmes
- Collating experiences:
  - The ESPIEW project
  - Inter-disciplinary parallel programme
  - Welfare innovation activities
- Establishment of partnerships and participation in relevant forums, e.g.:
  - COHEHRE Conference
  - American partners
- Draft curriculum, including plans for running parallel and joint programmes.

The project’s three phases
Phase 1
Purpose: To acquire an overview of the skills, international potential and experiences gained from joint work on ESPIEW.
The working party hosted and/or took part in the following activities during Phase 1:

- Solution Camp, which aimed to identify the competences needed in order to promote the facilitation of user-driven innovation
- Keynote workshop at the COHEHRE conference in May 2010, Oulu, Finland
- Collation of experiences from ESPIEW 2009
- Hosting a workshop at ESPIEW 2010 in Antwerp, Belgium. Focus on creativity and collating data for target-group analysis
- Supervising of colleagues – mono- as well as inter-disciplinary
- Workshops and presentations for colleagues and clinical trainers, in order to increase knowledge and experience of innovation and entrepreneurship among teaching staff
- Exploration of opportunities for potential partners for joint or parallel programmes
- Drawing up of project plan and milestone plan.

**Phase 2**

*Purpose: To raise the project to international level via knowledge transfer and the establishment of partnerships and networks. At the same time, work continued to develop the content of the module.*

- October 2010: Partnership Meeting with management and teachers from Metropolia (Finland) and Seton Hall (US). The partners signed a memorandum that contained an agreement to develop a parallel programme on innovation, as well as an agreement to explore the possibility of extending the project via a funding application to the Atlantis project
- November and December 2010: Study visit of partners at Seton Hall (US) and Metropolia (Finland) to build networks, analyse target groups and establish ownership for the project among all partners
- November 2010: Study trip to Boston via the Foundation for Entrepreneurship, including visits to Harvard, MIT, Babson University College and the New England Conservatory. The purpose was to collect knowledge and inspiration for teaching in entrepreneurship and to form national and international networks.
- November 2010: Partnership meeting with the MGH Institute of Health Professions (Boston, US)
- Draft of employer analysis, stakeholder analysis and communications plan
- Overview of the national partners and their activities in relation to teaching entrepreneurship and innovation
- Literature reviews.

**Phase 3**

*Purpose: To identify, describe and present best practice in order to develop the students’ ability to innovate, and to qualify them to participate in the development of the health system.*

- Analysis of data from participation in activities and study trips, which will be used in the module description
- Draft of module description
- Reporting back
- Marketing the project
- Draft of a plan for the future of the project
2. Innovation and entrepreneurship – change agents in health care

The following is a description of the Danish module, which could form the basis for the international module that will be drawn up at the partnership meeting in Helsinki in January 2011.

Duration and ECTS
10 ECTS credits, 6 weeks

Elective subject
The health education programmes at Metropolitan University College

Programme responsible
The Occupational Therapy and Physiotherapy programmes, Sigurdsgade 26, DK-2200 N

Objectives
- To develop different understandings (both theoretical and practical) of innovation and entrepreneurship in a public-sector context
- To provide insight into methods of facilitating and implementing innovative solutions in the health sector
- To equip participants with the competences to act as change agents in their work as health professionals.

Theme
The ability to think in an innovative and entrepreneurial manner is important for the health professionals of the future. The health sector needs people who are able to think innovatively and implement new solutions in response to the challenges that will arise as a result of demographic, economic, and organisational changes. This module’s purpose is to enable participants to act as change agents, e.g. by teaching them to implement and facilitate user-driven innovation.

The general theme of the elective subject is how to promote innovation and entrepreneurship in the health sector. Based on realistic case studies, participants work in teams on proposals for innovative solutions and outline suggestions for implementation. The module consists of
five themes that illustrate the process from concept to completion. As the participants complete the phases, they gain experience of, among other things, teamwork, creative tools, innovation processes, entrepreneurship, project management and prototype development. Some stages also include external collaboration with students from other disciplines, e.g. design, architecture, technology, economics and management.

Learning requirements
The module is aimed at students on health programmes. However, it is a prerequisite that participants have completed the first 12 modules of their programme.

Admission criteria for the national module
The module is in English, and students are expected to be able to understand and express themselves in spoken and written English. In all other respects, the module will comply with the frameworks for national co-ordination of elective subjects on Module 13.

Admission criteria for the international module/parallel programme
The module has places for max. 10 Danish students. If more than 10 students apply, the places will be allocated according to the following criteria:

- Students must master spoken and written English at level B1 (Common European Framework of Reference of Language)
- Students from Metropolitan University College have priority
- Places will be split equally between the two Metropolitan programmes involved
- In the final stage, lots will be drawn.

Learning objectives
Knowledge

- Knowledge of theoretical approaches to intrapreneurship and entrepreneurship, including creativity and innovation
- Account for key elements of working with and implementing an innovation process in the public sector, in relation to relevant theory
- Account for the principles behind user-driven innovation and social innovation, in relation to relevant theory
- Knowledge of methods and content in the phases ‘project selection and project’
- Knowledge of project management and related tools
Skills

- Identify needs for innovative solutions in the health-care sector
- Select and apply methods of innovation and entrepreneurship in a given context
- Apply principles and methods for user-driven innovation
- Formulate proposals for the facilitation of innovation processes
- Draw up business plans, including analyses of stakeholders, networks and target groups
- Search for and share knowledge as part of a team
- Use project-management tools

Competences

- Justify the choice of method for innovation and entrepreneurship in a given context
- Navigate in an unstructured problem area
- Work in complementary, inter-disciplinary teams to produce value-added outcomes
- Exploit diversity as a valuable resource in various collaborative contexts
- Work constructively, despite barriers and challenges.

Learning activities

The course consists of a combination of theoretical presentations, practice visits, teamwork, role-play, exercises, presentations and self-study. The aim is that the participants develop the required skills and competences by undertaking and participating in an innovation process, rather than hearing about it.

How much the individual student gets out of the course is largely determined by their contribution to discussions, teamwork and processes. This presupposes active participation in all module elements.

Content and structure

The module is built on five themes: Prologue, Preject, Selection, Project and Epilogue. These themes can be related to the work processes in entrepreneurship/intrapreneurship. See the illustration below.
<table>
<thead>
<tr>
<th>Prologue</th>
<th>Project – Passion</th>
<th>Selection – Vision</th>
<th>Project – Mission</th>
<th>Epilogue</th>
</tr>
</thead>
</table>
| • Theories of intra- and entrepreneurship, including creativity, innovation and entrepreneurship  
• Presentation of problems  
• Examples of successful projects  
• Forming teams | • Divergent thinking  
• Strategy development  
• Knowledge generation and transfer  
• Identification of networks  
• User-driven innovation  
• Social innovation  
• Systematic development of ideas | • Convergent thinking  
• Team collaboration with students from other programmes (e.g. CBS/RUC/DTU/Design)  
• Knowledge-gathering  
• Selection on basis of analysis  
• Start of development of business plan, including stakeholder analysis | • Develop prototypes of processes or products  
• Simulation processes  
• Prototype evaluation with user involvement  
• Potential strategies for implementation  
• Teamwork with students from other programmes – e.g. CBS/RUC/DTU  
• Work on business plan | • Concluding panel debate with representatives of companies, researchers and developers  
• Judging and awarding of annual 'Best Idea' prize |

**Case**  
**Company visit**  
**Team-building**  
**Project-management tools**  
**Solution Camp**  
**Creative processes**  
**Tutoring**  
**Data analysis**  
**Teamwork**  
**Classes**  
**3 days**  
**8 days**  
**4 days**  
**Concluding panel debate with representatives of companies, researchers and developers**  
**Judging and awarding of annual 'Best Idea' prize**
Portfolio
During the module, participants prepare five portfolio pieces – one for each theme. This constitutes the students’ portfolio of work for the module. Elements of the portfolio will be incorporated into the teaching and/or included as part of the supervision. The work on the five portfolio pieces helps to qualify and support the participants’ work on the final portfolio contribution, which is assessed as part of their own programme.

Concluding panel discussion
The module concludes on Tuesday of week 6 with a panel discussion and the awarding of the ‘Best Idea’ prize. The competition judges consist of the participants in the panel debate and the lecturers on the module.

Timing of the elective subject

Module assessment
The module ends on Tuesday of week 6. Students may spend the last three days of the module working on their assessment portfolio, which must submitted by noon on Friday of week 6. The assessment follows the guidelines for the appropriate programme.

Number of participants
Min. 20, max. 40.

Teachers
To be decided in January 2011

Module bibliography