

# Chapter 53

## Teaching a ‘Managing Innovation and Technology’ Course: Ideas on How to Provide Students the Knowledge, Skills, and Motivation to Encourage Entrepreneurial Success

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### ABSTRACT

*In the last few years an increasing emphasis on developing entrepreneurship has been evident in many universities in an effort to prepare students to integrate effectively into the competitive working environment of the 21<sup>st</sup> century. A key question is how to do this. This work examines the impact of Student Centered Learning (SCL) introduced in a multidisciplinary undergraduate course of Management of Innovation and Technology at the University of Nicosia. It examines students’ and lecturer experiences, benefits and challenges of implementing SCL, and gives recommendations to lecturers for designing a SCL based curriculum, incorporating inductive methods. The findings may be useful for academics who teach entrepreneurship related topics and seek ways to incorporate innovative approaches in their teaching and learning processes in order to motivate students towards the development of entrepreneurial skills and thinking.*

### INTRODUCTION

Living in a world of continuous scientific and technological change, university students need to be more prepared to effectively integrate into the competitive working environments of the 21st century. A general observation is that teaching entrepreneurship through other courses besides business and management generates questions on whether any real world cases could be explained; if practical problems can be

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solved; or if all this knowledge meets students' ambitions; and finally if it is really motivating to tell students that they will someday need certain knowledge and skills (Prince & Felder, 2006). The issue becomes more important when an educator has to teach entrepreneurial thinking to a multidisciplinary class with students coming from different specializations. Questions that are common include: How achievable is to convince such a diverse audience through a course that cultivates entrepreneurial thinking and acting skills will be useful for their careers? Which pedagogical approaches should be implemented to engage and motivate students towards entrepreneurial learning? How students learn to think and act as an entrepreneur: be creative, come-up with innovative solutions, use problem-solving skills, work in teams, gather and evaluate data and finally take risks? These skills can be acquired through the use of a range of innovative teaching and learning methods such as student-centered methods that impose more responsibility on students for their own learning than the traditional teacher-centered method.

In order to meet the demands of 21<sup>st</sup> century employment, educators and practitioners should prepare students in order to work in different environments with many complex requirements, by introducing theory in combination with real-world cases/applications to analyze. A student-centered approach, where the student is responsible for his/her own learning by building his/her own version of reality, is an alternative approach to learning. Specifically, a student-centered approach includes inductive teaching and learning where students are primarily presented to a precise challenge, like a real-world case study to analyze, and seek a solution to a complex illustrated open-ended real-world problem or interpretation of experimental data. While dealing with these challenges, students realize that they lack skills, knowledge, facts and conceptual understanding and they request the help of the lecturer, who plays the role of the facilitator. Ramsden (2003), Norman & Schmidt (1992) and Felder & Brent (2004) demonstrate that inductive methods encourage students to adopt a deep approach to learning that lead to further intellectual development. Inductive teaching and learning incorporates the following learning methods: inquiry, problem-based, project-based and discovery as well as case-based teaching and just-in-time teaching. Prince and Felder (2006), one of the few who have examined these methods as a group, have reviewed several of the most commonly used inductive teaching methods defining each method, highlighting commonalities and specific differences, and reviewing research on their effectiveness for science education.

This work presents the impact of Student-Centered Learning (SCL) introduced in a Management of Innovation and Technology, an undergraduate elective course at the University of Nicosia, Cyprus. It examines students' and lecturer experiences, benefits and challenges of implementing SCL, and gives recommendations to lecturers for designing a SCL based curriculum, incorporating inductive methods mainly aiming at the development of entrepreneurial thinking and acting.

## **BACKGROUND**

### **Student Centered Learning**

Literature defines SCL in many ways, the core though is included in Cannon's (2000) work who proposed that student-centered learning describes ways of thinking about learning and teaching that emphasize student responsibility for such activities as planning learning, interacting with teachers and other students, researching, and assessing learning. Another expression for SCL used by Huba and Freed (2000) is learning centered assessment emphasizing the transition in the focus of instruction and assessment from teaching to learning. Collins and O'Brien (2003), on the other hand, described SCL as an instructional approach

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