Chapter 6
Cultivating Entrepreneurial Thinking through a Management of Innovation and Technology Course:
Evidence from the University of Nicosia

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ABSTRACT

In recent years, the concept of entrepreneurship and the idea of entrepreneurship education are not novel. Entrepreneurship education at the university level is mostly taught in business schools. Entrepreneurial skills, though, are not only necessary for students who become entrepreneurs. Science and Management Information Systems (MIS) specializations are preparing students to effectively integrate into the competitive working environments of the 21st century. Nevertheless, a common observation is that it is often difficult for students to see any motivation in cultivating mainly entrepreneurial thinking through a course of Management of Innovation and Technology. Academics and practitioners, who teach related topics, especially to multidisciplinary classes, continuously seek innovative teaching and learning approaches to impose more learning responsibility on students, mainly to cultivate their entrepreneurial thinking and acting. This chapter examines the impact of Student-Centered Learning (SCL) introduced in the new multidisciplinary undergraduate course MGT370 Management of Innovation and Technology at the University of Nicosia. The study shows that students and lecturer effectively adopted SCL and commented on its worth for their teaching and learning. Further, the study confirms the implementation of SCL as a significant contribution in cultivating students' entrepreneurial thinking in meeting the needs of the 21st century.

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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 to generates questions on whether any real world cases could be explained; if any practical problems can be solved; or if all this knowledge meet the aspirations of the students' and finally if it is really motivating by telling students that they will someday need certain knowledge and skills (Prince & Felder 2006). Is it really motivating to know that the cultivation of their entrepreneurial thinking and acting skills will be useful for their curriculum and further for their careers? According to Randash & Wallace (2001) and Segmour & Hewitt (1997) the most common reason for students to leave sciences is the lack of connecting the course material to the real world. For this reason, these students need to be educated to: be creative, come-up with innovative solutions, use skills like problem-solving, teamwork, evaluation, data gathering and finally risk taking, think and act as an entrepreneur. 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.

Sternberg (1998: 18) in his work states, *"*instruction should be geared not just toward imparting a knowledge base, but toward developing reflective, analytical, creative, and practical thinking with a knowledge base. Students learn better when they think to learn...They also learn better when teaching takes into account their diverse styles of learning and thinking*"*. In order to meet the demands of 21st 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, 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 of their effectiveness for and science education.

This chapter presents the impact of SCL introduced in a new multidisciplinary undergraduate course 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 mainly aiming at the development of entrepreneurial thinking and acting.