





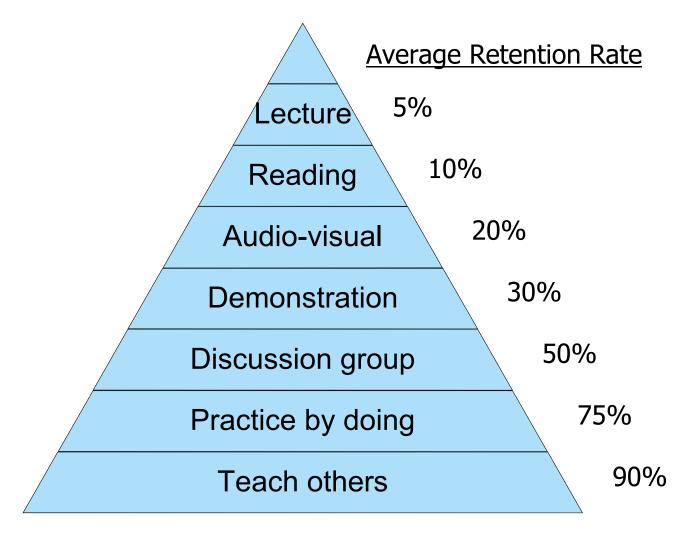
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Outline of Talk

- Introduction
 - Technology entrepreneurship and STUDENT COMPANY
- JA Graduate Student Company Education
 - The Process of Education
 - Top Challenges
 - Results in Bulgaria
 - Key Success Factors
- Student Company Patterns
 - Patterns
 - Graduate Student Pattern example
- Conclusion



Involve Me and I Will Understand



From: National Training Laboratories, Bethel Maine



"Strategy means finding the patters that drive the business"

Professor James Schrager

 One of the ways to codify and to disseminate knowledge and best practices is pattern language. People who actively involve pattern thinking can benefit from it.

Purpose

The paper presents an attempt to write a strategic pattern for life-long learning and the paper presents the experience of the authors with a model -- the "Graduate Student Company"

Design/methodology/approach – our approach involves review and observation of European and global practices in the field of entrepreneurship education; practical implementation of the JA-YE methodology for the Graduate Student Company.

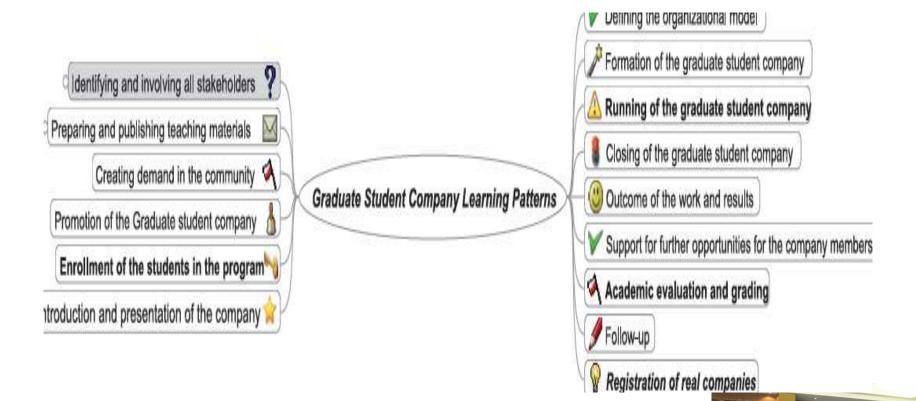
"EDUCATING STUDENTS NOT JUST FOR A JOB BUT TO CREATE JOBS"

Findings



- the paper represent the experience and best practice of the JA-SU partnership and propose a model for future implementation in both engineering and scientific faculties. Learning-by-doing methodology is a key success factor for teaching entrepreneurship.
- **Practical limitations/ implications** we believe that the presented model is a good practice and can be promoted and successfully implemented in other universities in the region.
- Originality/value the patterns is seen as a good repeatable practice to encourage involvement and mentorship on part of the business community and improve the learning environment and entrepreneurship ecosystem. The model is expanded and implemented in 4 more universities in Bulgaria 30.4. during 2007-2008 academicovear

Graduate Student Company Learning Processes



30.4.2009 г. ICEIRD 2009

Approaches Deployed

Through

Best Practices

And

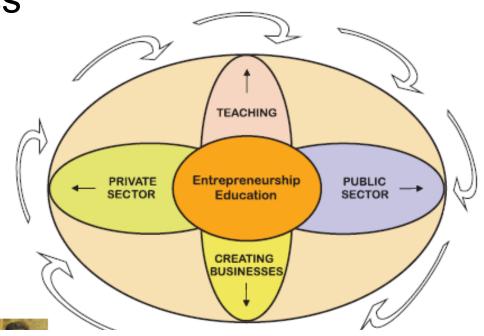
Innovations



Model Descriptio

JA-SU model represents a good synergy of applying the professional qualification in a business

set-up. It involves the development of a Student-run mini enterprise, Graduate Student Company



Creating a dynamic space where business and education meet

Key Success Factors



- Learning-by-doing methodology is a key success factor for teaching entrepreneurship
- Direct participation from the business community
- Programmes tried and tested across Europe
- Annual international events for students, teachers and business advisors
- Endorsement from national ministries of Education, Industry and Finance and from the EC
- Extensive teacher training and support

Top Challenges

- The silo based administrative structures are unresponsive to cross disciplinary programs
- Faculty must model creative, innovative and entrepreneurial behaviors
- Faculty must not be problem solvers but opportunity seekers
- Faculty must learn from and share lessons learned from failures
- Faculty must seek collaborations, change and risk
- Faculty must respect and engage the talent and skills of other disciplines, outside experts and successful alumni
- Faculty must stop spoon feeding information and start developing knowledge and wisdom through experiences – empowering for success

Faculty must encourage student ownership of projects

SOFIA UNIVERSITY

No	Academic Year	Students	Number of Companies	Register their own companies
1	2004-2005	11	1	
2	2005-2006	15	1	
3	2006-2007	18	1	1
4	2007-2008	35	2	2

ACADEMIC YEAR

University	Stud ents	Number of Companies	Register their own companies
Technical University - Varna	6	1	1
Technical University - Rousse	7	1	
University of Forestry, Sofia	10	1	
Plovdiv University in Food Technology		1	

Graduate Student Pattern

- **Example**Description: Students are educated and learn through a process of creation, registration and running of a student company. The company (GSC) functions as a real company (but is registered with the local JA office) in real market conditions. The participants in the company receives advice and mentoring by experts and practitioners from real business organizations but run the company themselves. After the GSC educational process, successful companies proceed with a legal registration and establish as new start-ups.
- Government" of the Faculty of Mathematics Information Science of Sofia University have the elective course Entrepreneurship Gradute Student Company in their curriculum. The latter conduct a promotion campaign among the students at large from these falties and universities, and established 2 Grdauate Student Companies which followed the real business educational process of Junior Achievement and created firms, formed departments, appointed staff, issued shares, designed and developed a product and produced it as well. At the closing stage of the process, the members of the company participated in a national competition for a best company and the winners represented the country in the Eurpean wide competition for a best Graduate Student Company in Brussels.

Graduate Student Pattern

- Context: Preliminary conditions for conductions this course and training through this strategic pattern include securing that the course is a part of the elective offerings in the curriculm of this faculty that the professors and students are trained to act on the described roles. It is necessary also that teaching materials, guides for consultants, teachers, and students are secured for the participants and provided to them afer having been developed and published by Junior Achievement. These conditions are enforced and true for the respective academic year and do not change while implementing the pattern. A GSC is not expensive to run and there is no ricks for the stakeholders.
- **Forces:** One of the major problems in our educational system is the existence of a big gap between academia and business. It is a recognised phenomenon that needs to be addressed on a pan-European level. The traditional university education is rather static and lagging behind the current dynamic economic environment. The classical knowledge life cycle from the moment of creation of knowledge and delivery to the students through books and professors is much slower than the direct contact with the knowledge creators. On the side of the continuum, for students to "plunge" directly in the real business without going through the practical learning curve will take this activity out of the educational life cycle.
- The use of this pattern guarantees interaction and contact of the students with practitioners and consultants from the real business sector. The proper use helps to eradicate the problem of lack of practical experience and work in real business conditions. The other forces is the need of multidisciplinary competences technology, business, human behavior designed for the graduated students and fly-by-GSC pattern student will practice and learn many creativity and innovation lessons. Business and governance can diverse background of participants in the Graduate student company is extremely important and useful The learning-by-doing model is provokes involvement, commitment and collaboration among the students Empowering the participants by giving them different roles motivates the

Graduate Student Pattern Example III

- Therefore: Establish a Graduate Student Company (GSC). A GSC provides postsecondary students the opportunity to experience of the running their own company, giving them an insight into how their talents could be used to set up in business for themselves. GSC students acquire real experience of the world of business: creating and researching a business plan, taking responsibility and being accountable to their shareholders for the running of the company. Through this program students develop attitudes and skills necessary for personal success, lifelong learning and employability, plus an understanding of how business works; gain an insight into selfemployment, business creation, risk taking and coping with adversity, with advice and support of business consultants available.
- During the educational process the students form their own student company, manage it efficiently and achieve a real financial result at the end of the course. The Graduate Student Company functions like a limited company, and the members buy shares in the company though personal contributions. The number of partcipants is up to 15 people, and they operate in departments with Vice presidents as heads and a President as the CEO of the company.
- Adoption: Most of the experience of the authors in the delivery of this program has been with students from high schools and some college students. The current program has been upgraded, adapted and innovated for Masters' degree students from technical and scientific faculties. The authors are convinced that such a course adds great educational value for the students with such background as it exposes them and develops their entrepreneurial mindset and business competency.

Conclusions I

- Tomorrow innovations in Bulgaria will emerge from today's investment in graduate entrepreneurship and innovation education.
- The program shows very good results at Sofia University and 4 other universities in Bulgaria.
 - We attract the most innovative and motivated Bulgarian students, the educational process is exciting and creative
 - Integration between Faculty, Business and other Stakeholders is key to the successful educational process realization
 - The Graduate Student Company program is seen as a good practice to encourage involvement on part of the business community and improve the learning environment and entrepreneurship eco



Conclusions II

- When one is faced with a problem, one does not need too much analysis but rather a solution to the problem. Nowadays, when we are faced with so much information the problem is to choose the most useful one. The strategic pattern, and in particular the one presented in the current article, pattern for learning —by-doing by the life-long learning group can be a useful framework and a solution how to find quickly and adequately the necessary strategy to solve the current problem.
- Our experience so far, has provided enough evidence that the student company life cycle pattern can be one of the steps to address this issue and apply an innovative and hands-on approach to it. The stages in the process of the GSC are many and follow the logic of real company. To indicate where there are more patterns authors use uppercase letters for terms of (potential) sub patterns.

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THANK YOU!





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