



*Learning business
by doing business*

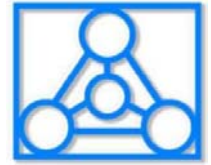
Simulation and Gaming Approaches in Entrepreneurship-Education

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TERTIA Edusoft GmbH

- UNICON was founded in 1982 and has become the largest provider of computer- and internet- based management simulations in the German speaking part of Europe
- In the fall of 2001 UNICON became part of the TERTIA-group. Fields of competence in simulations
 - Development and distribution of standard business simulations (brand: TOPSIM-simulations)
 - Development of customized management simulations
 - Development and realization of management trainings
- New fields of competence include a variety of e-Learning tools as well as a number of (classical) distance learning classes
- TERTIA Edusoft also offers Gamma, a computer-based tool for holistic thinking and as well as interaktive CBT for business administration



Part I

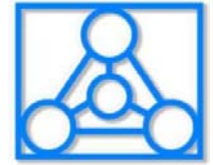
A new focus on entrepreneurship education ?



Competencies for entrepreneurs I

- **Technical Skills**

- knowledge of facts, theoretical knowledge and methods relevant in a start-up situation and in coping with specific conditions encountered in a young and growing enterprise.
- Technical skills are mainly comprised as follows: Knowledge of facts (Know-what), ability (Know-how), understanding a situation (Know-why) and problem solving skills (Applying-knowledge).
- Typical examples of technical skills are: business administration knowledge (financial planning, market analysis), business plan writing techniques, knowledge of legal forms of firms, product technology

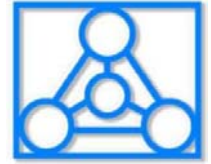


Competencies for entrepreneurs II

- **Social Skills**
 - They describe a person's ability to co-operate effectively with other people.
 - e. g. team skills, understanding, conflict resolution skills, leadership skills.
- **Conceptual Skills**
 - Core entrepreneurial abilities
 - e. g. visionary and strategic thinking, a holistic view of an enterprise and its environment, creativity, proactiveness, anticipatory thinking and acting and the ability to reduce complexity
- All three kinds of skills are equally required within a start-up situation.



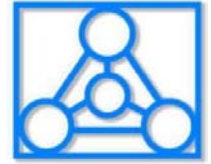
Use of Management Simulations in entrepreneurship education



- Knowledge of facts („Know-What“):
 - Well suited for refreshing knowledge of facts
 - Combination with other learning methods increases their results perceptible
- Holistic and transfer-knowledge („Know-Why“)
 - Management simulations are well suited
 - Basics knowledge of facts is required
- Skills and soft skills („Know-How“ and „Care-Why“)
 - May well be trained with management simulations
 - Tends to be an implicit training goal
- Attitudes
 - Increasing knowledge and actually experiencing a startup-simulation also influences one`s attitudes
 - A change in attitude as a base for a change in one`s behavior



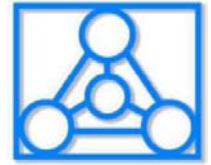
Are entrepreneurs born or are they taught?



- A. Born
- B. Taught by life and experience
- C. Taught by school
- B + C
- A + B + C



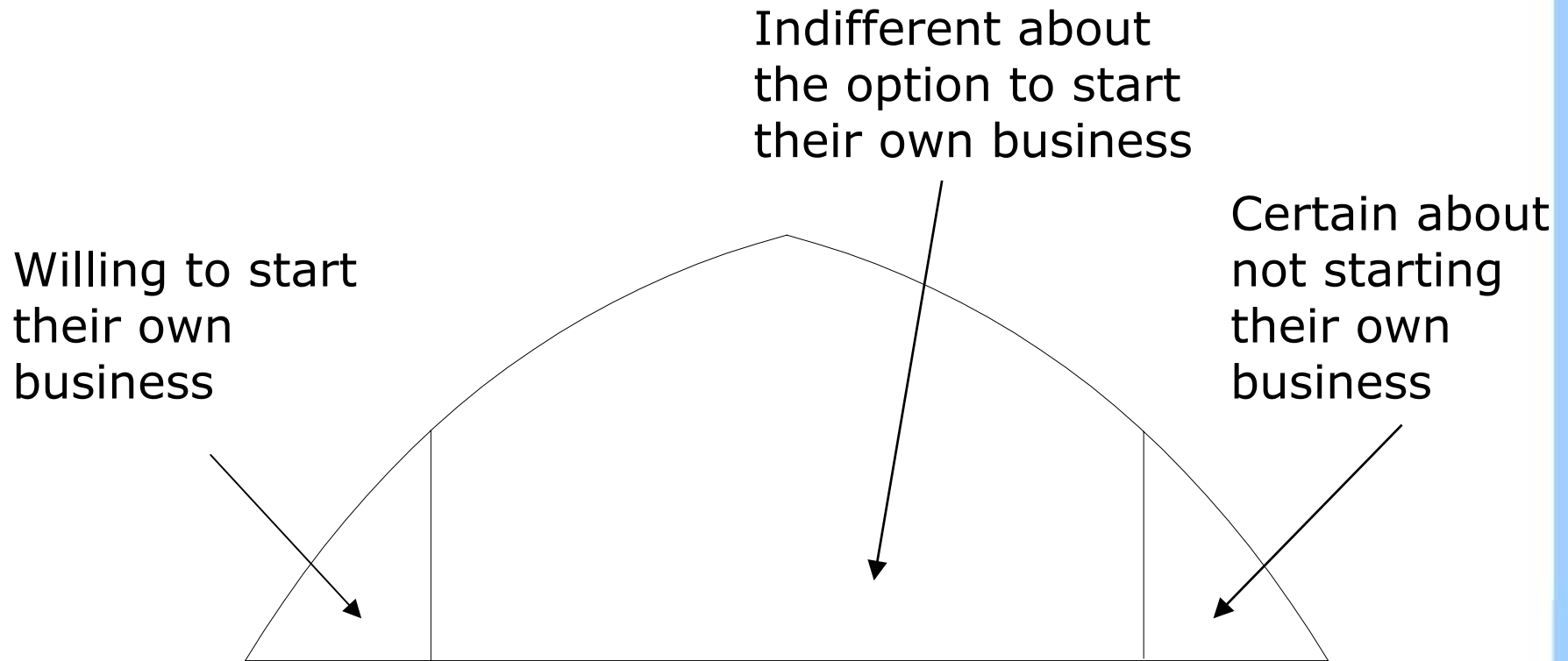
Are entrepreneurs born or are they taught?



- Educational institutions seem to have an answer to this old question: entrepreneurs can be taught.
- Curriculum for entrepreneurship education is being developed, refined and debated at numerous institutions:
 - Business plan classes
 - Classes on small business growth, strategy ...
 - Case studies, also simulations
- Goal: to teach students the skills to build a business.
- Typical curricula focus on a target group which is already interested and willing to start their own business ...



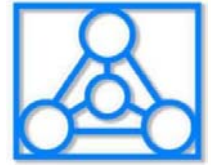
A look through the population*



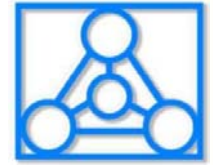
* Adapted from Braukmann, Ulrich 2000



The next step: educating ABOUT entrepreneurship



- A new focus: educate the „sleeping majority“ about entrepreneurship
- Reasons:
 - Low interest by many students in those careers
 - Changes in the work environment
 - Awareness of lost potential ...
 - „Ich-AG“ (a new version of small businesses targeted at unemployed)
- The first step is to change one`s attitude
 - Competencies for entrepreneurs are a base
 - Teaching too many technical skills can actually cause someone to loose the focus on the big picture



Focus on High-school students

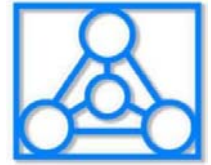
- Reasoning
 - Lack of knowledge about the business world
 - High interest by students and low awareness
 - Large number of small to medium sized family businesses
 - Guidance for university and career choices
- Target group
 - Grade 10-13
 - Typically university bound
- Initial knowledge
 - None or „negative“
 - Sometimes some knowledge with a focus on economics



Business, economics and law in German high school curricula

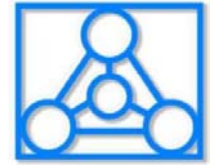


- German states are currently integrating those topics into existing curricula or developing new curricula on a high-school-level
- The traditional focus was mostly on economics and now moves towards business administration
- Simulations are part of most curricula but a fair portion of the teachers tends to ignore them for a number of reasons
- Many teachers have never received a training for those topics and lack own experiences
- Ready-to-use-solutions are needed



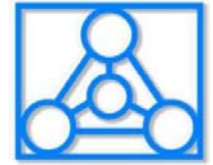
Part II

Simulation and Gaming-approaches for
entrepreneurship-education in High-schools



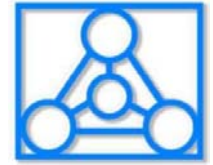
Options and formats

- Mandatory or voluntarily
- Teaching- or competition-oriented
- Web-based or classical
- Free form or rigid rules
- Part of the curriculum or competition
- Kind of competition
- Simulation-only or integrated learning or teaching materials
- Other goals



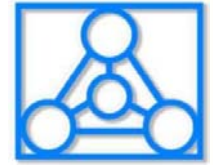
Example 1: TOPSIM - Easy Startup

- “TOPSIM-Startup!” is a strategic entrepreneurship simulation which was jointly developed by the University of Applied Sciences Regensburg, the UNICON Management Development GmbH and the Hans Lindner Institut.
- A strong emphasis is put on a realistic simulation of the start-up phase within the first 2 years of a new venture.
 - Initial Phase: The entire process of starting a new venture is simulated: starting from the business idea, covering the writing of the business plan and leading to the actual incorporation of the company.
 - Competition Phase: After the incorporation, the business concept has to be put to work in a very competitive environment. Up to five teams will be competing against each other for up to 3 years



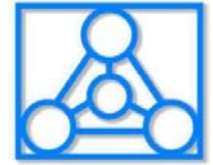
Example 1: TOPSIM - Easy Startup II

- “TOPSIM- Easy Startup!” is a simplified version specially targeted at High-School Students and also 1st year college students
- It simulates starting up a small shop for surfboards in a vacation resort
- All topics relevant in a startup-situation are covered, but they are adapted for high-school-students
 - Cover-story
 - Size of the business
 - Degree of complexity



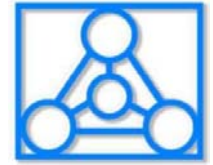
Example 1: TOPSIM - Easy Startup III

- The simulation is intended for classroom-use by the teacher
- It can be used over 2 or 3 days or on a weekly base
- 3-6 students form 1 team which will be competing against up to 4 other teams
- Teachers are provided with additional teaching ressources and the simulation provides special tools for the analysis
- Focus: using the simulation as a teaching-tool for entrepreneurshhip in a classroom



Example 2: PriManager

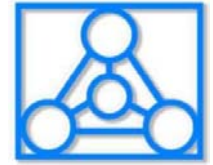
- Simulation was developed by TERTIA Edusoft and Steinbeis-Tranfer-Zentrum für Managemententwicklung an der Fachhochschule Pforzheim in the year 2000
- Supported by the State of Baden-Württemberg and Sparkassen, IBM and other organisations
- Competition in a cup-format
 - 3 rounds of competition
 - The best teams advance to the next level
- Business has just been founded
- Students have to grow this business



Example 2: PriManager II

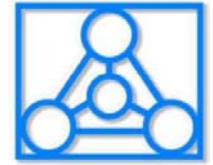
- Students „grow“ with their businesses
 - City-Cup: small bike-store over 4 years in 1 day
 - Regional-Cup: a small bike-producer over 6 years
 - Landes-Cup: a large bike-producer over 6 years, diversifying a bringing this company public
- Main focus: experience entrepreneurship





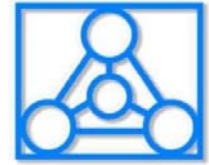
Example 2: PriManager III

- Approaching 10.000 participants next season
- No involvement by the teacher required except 1 school hosting the competition
- Facilitators: consultants, professors and other professionals with experience in Business Administration volunteer their time (mostly on Saturdays)
- Capacity is a restraint
- Scope of PriManger will be extended into the classrooms starting next year



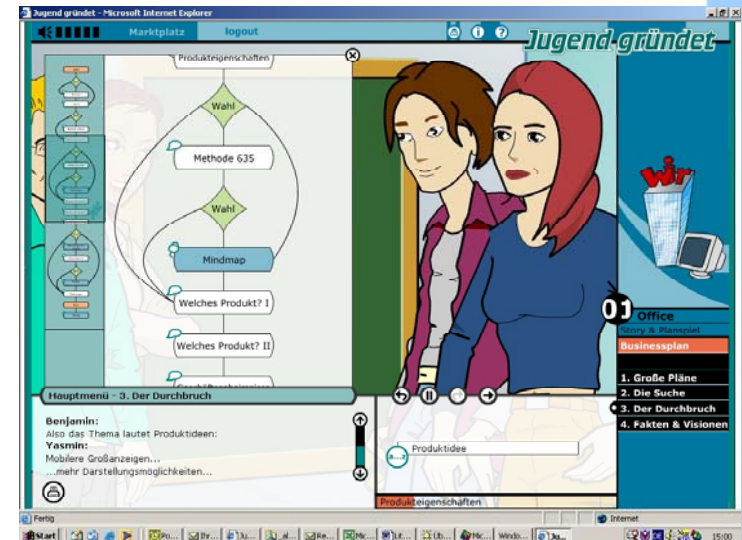
Example 3: Jugend Gründet

- Web-based competition with a strong focus on High-Tech
- Nationwide Initiative by the German Federal Ministry of Education and Research
- Supported with additional resources for teachers on the topics of high-tech and entrepreneurship
- Competition in several phases
 - Business-idea and Business-plan
 - Feedback by a jury
 - Foundation of the company based on the business-plan
 - Simulation against „virtual competitors“ over 4 years



Example 3: Jugend Gründet II

- Embedded in a very rich web-based learning-environment
 - Business-Plan-Assistent
 - Simulation
 - Tools for communication
 - Avatar (a virtual business angel)
 - Tutorials with an ongoing story





Example 3: Jugend Gründet III

- About 2.000 participants in the first year
 - More than 500 Business Plans
 - 600 teams competed in the simulation
 - Almost 1.000 registrations for the upcoming season
- No involvement by the teacher required
- A lot of support provided for teachers willing to integrate the simulations into their teaching
- Facilitation done over the web
- This initiative will continue



Comparison

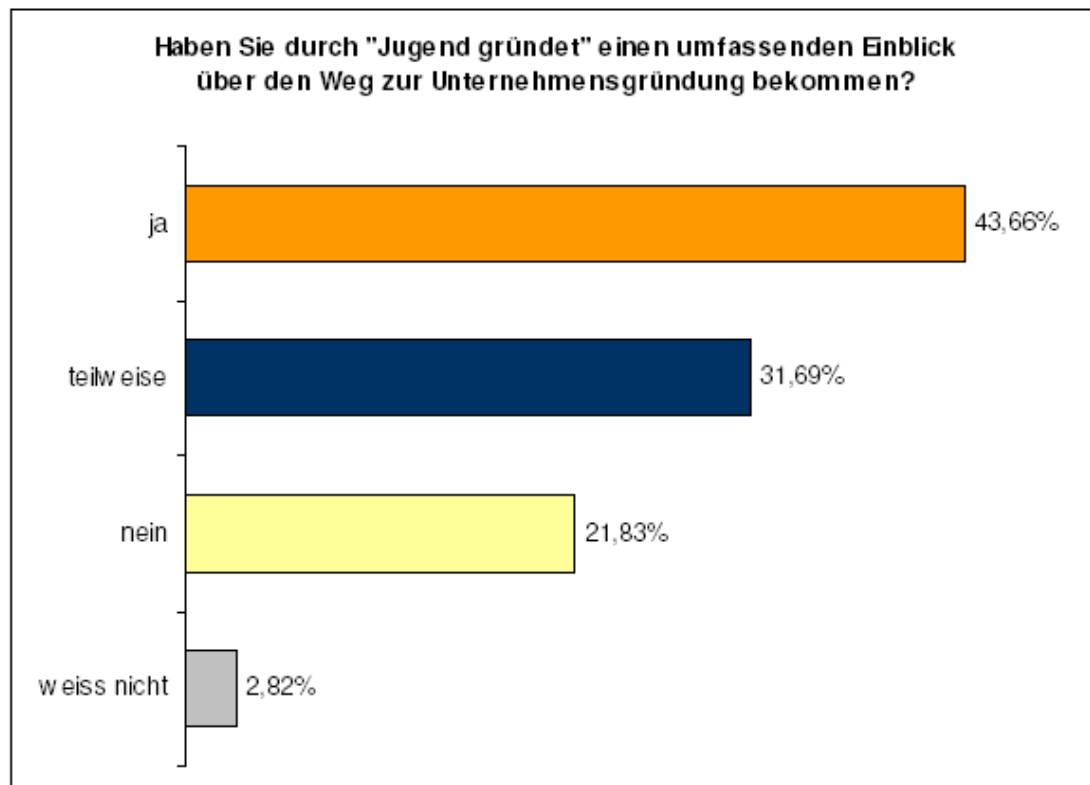
	Easy-Startup	PriManager	Jugend Gründet
Mandatory/voluntarily	Mandatory	voluntarily	voluntarily
Teaching/competition	Teaching	Competition	Both
Web-based/classical	classical	classical	Web-based
Free form/rigid rules	rigid rules	rigid rules	„Semi-open“
Kind of competition	peers	Other schools	Rule-based
Additional teaching	Teaching materials	None except sceanrios	Web-based environment
Other goals	None (up to the teacher)	Company succession	High-tech

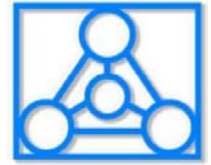


Findings from the evaluation

- Did „Jugend Gründet“ provide you with comprehensive insights about starting a business

- Yes
- To some extend
- No

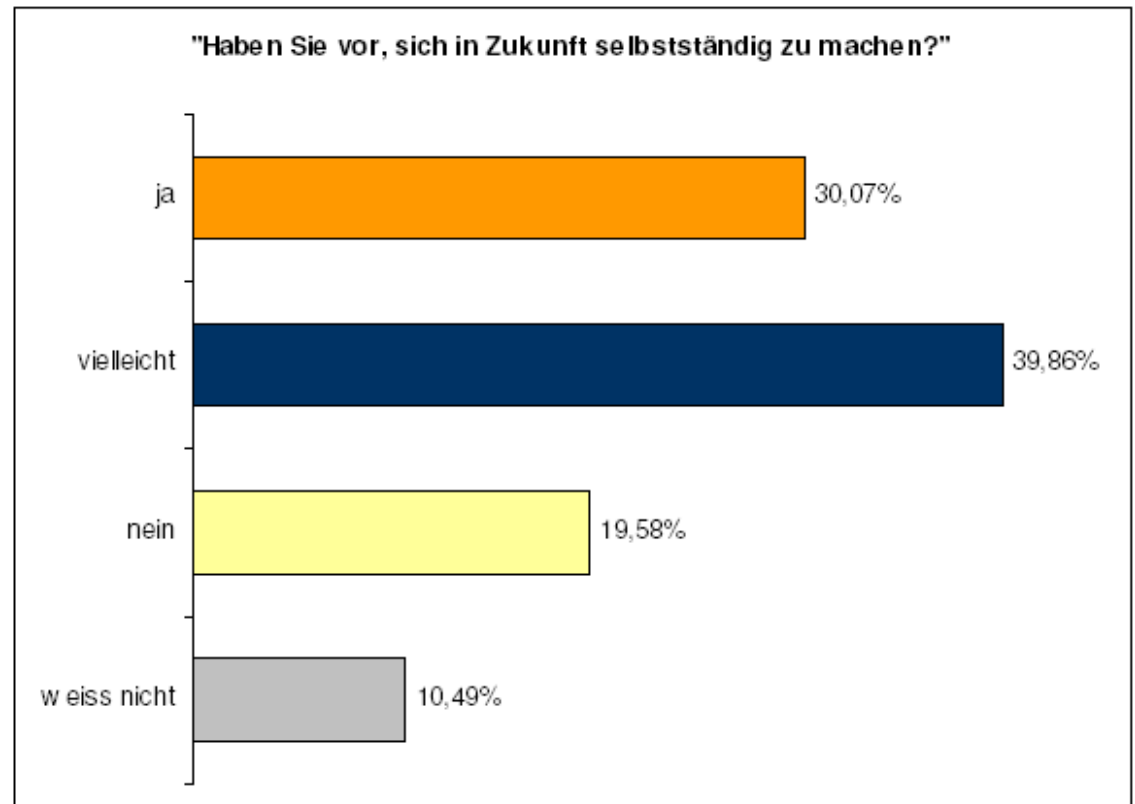


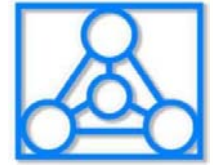


Findings from the evaluation II

- Do you plan to start your own business in the future ?

- Yes
- Maybe
- No





Simulation and gaming approaches are not the „one size fits all-solution“ for all requirements in educating High-schools-Students about entrepreneurship, but it appears to be a very effective and efficient method for the relevant learning goals.