KARL-FRANZENS-UNIVERSITÄT GRAZ
UNIVERSITY OF GRAZ

LMU LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN

IWP INSTITUT FÜR WIRTSCHAFTSPÄDAGOGIK und INSTITUT FÜR STATISTIK

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"Starting up" for managing future working life

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Reykjavík (Iceland)
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Agenda

1. Motivation
2. Current shortcomings in Entrepreneurship Education
3. Suggestions on a course and program level in accordance to
   - the Curriculum-Instruction-Assessment Triad
   - life-span considerations
4. Discussion and critical reflection

1. Motivation

Current “megatrends” correspond with dramatic changes: e.g., routinized work and basic decisions get automated

→ new business models and business processes have to be invented for creating added values

→ employees are forced to develop new strategies for their careers and employability

➔ entrepreneurial behavior is required to master such needs at the workplace as well as in private life

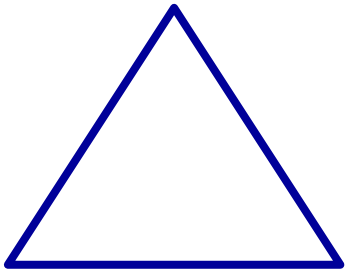
1. Goal of our presentation

- to pinpoint **current shortcomings** in teaching and training this entrepreneurial behavior
- to present a suggestion on **course level** as well as on **program level**
- to **discuss** with you also your experiences, best-practice, suggestions

2. Current shortcomings in Entrepreneurship Education

Curricular goals

Which competences should be developed
(e.g., enterprising orientation, knowledge, performance/skills, abilities, entrepreneurial spirit, intention)?



Assessment measures

Can we infer from the mainly used self-reports to real performance?

Instructional means

“Experiential Learning” that beats everything?

Start across the life-span

When to start with regard to the life-span?

3. How to identify curricular goals?

Systematic literature review and expert interviews for discovering **situational challenges** and **affordances** (Benninghoff & Weber, 2014)

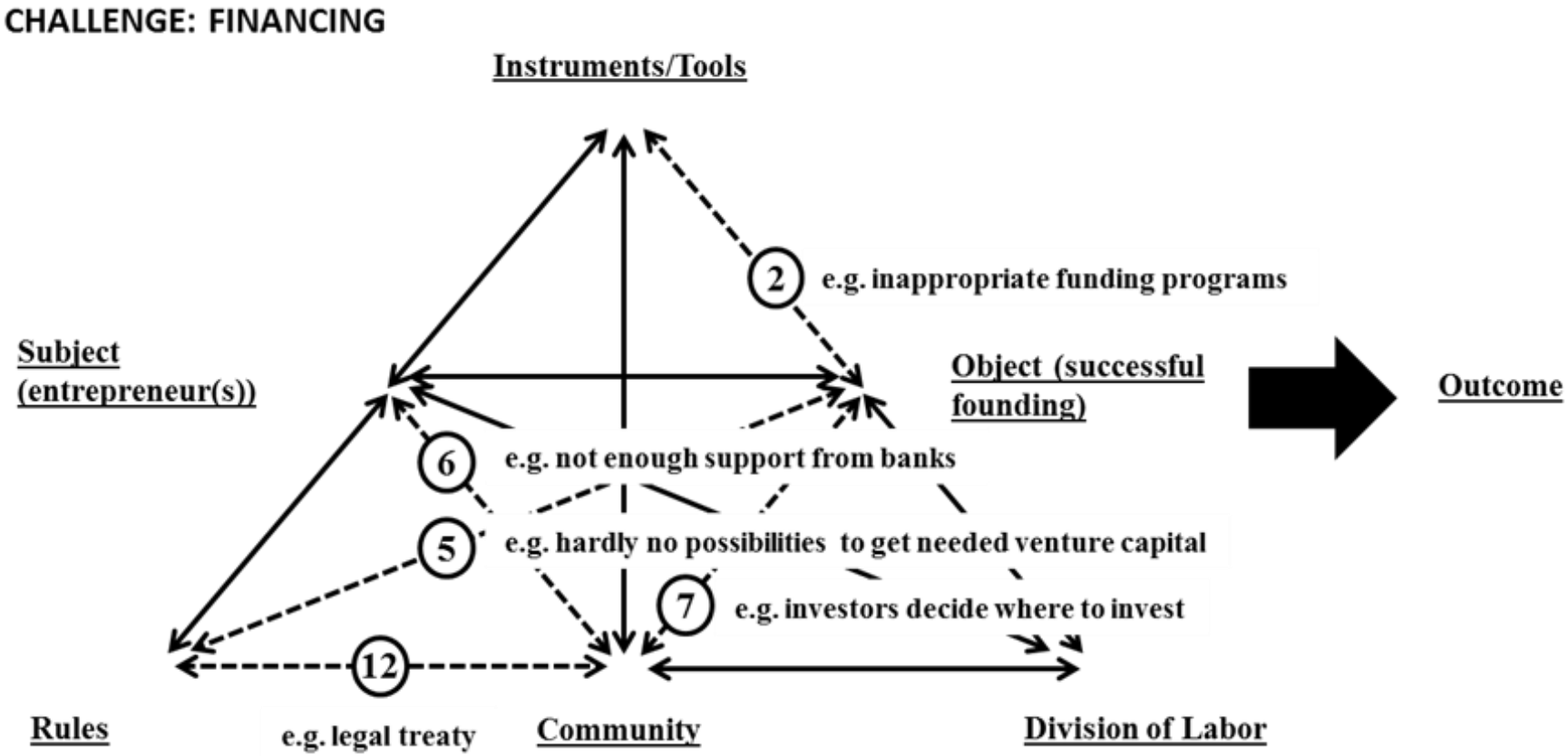
		Literature		Experts			
	Challenge	Sum Literature	Rank Literature	Sum Experts	Rank Experts	Total	Rank Difference
1	Business Idea	6	6.5	5	7.5	11	-1
2	Business Model	8	4	11	2	19	2
3	Business Premises / Human Resources	3	13.5	2	12	5	1.5
4	Context Limitations (Market)	3	13.5	1	13.5	4	0
5	Division of Labor	4	10.5	9	3.5	13	7
6	Financing	12	1	12	1	24	0
7	Formal Rules	5	8	3	10	8	-2
8	Founding Team	6	6.5	9	3.5	15	3
9	Informal Rules	4	10.5	3	10	7	0.5
10	Knowledge & Skills	4	10.5	3	10	7	0.5
11	Marketing	2	15	0	15	2	0
12	Personal Characteristics	11	2	5	7.5	16	-5.5
13	Social Capital	10	3	7	5.5	17	-2.5
14	Unknown Firm	4	10.5	1	13.5	5	-3
15	Work Load	7	5	7	5.5	14	-0.5
	Total	89		78		167	

There are also no significant differences between the contradictions mentioned in the literature and by the experts.

3. How to identify curricular goals?

Analyzing these **situational challenges** and **affordances according to Engeström's Activity System.**

(Benninghoff & Weber, 2014)



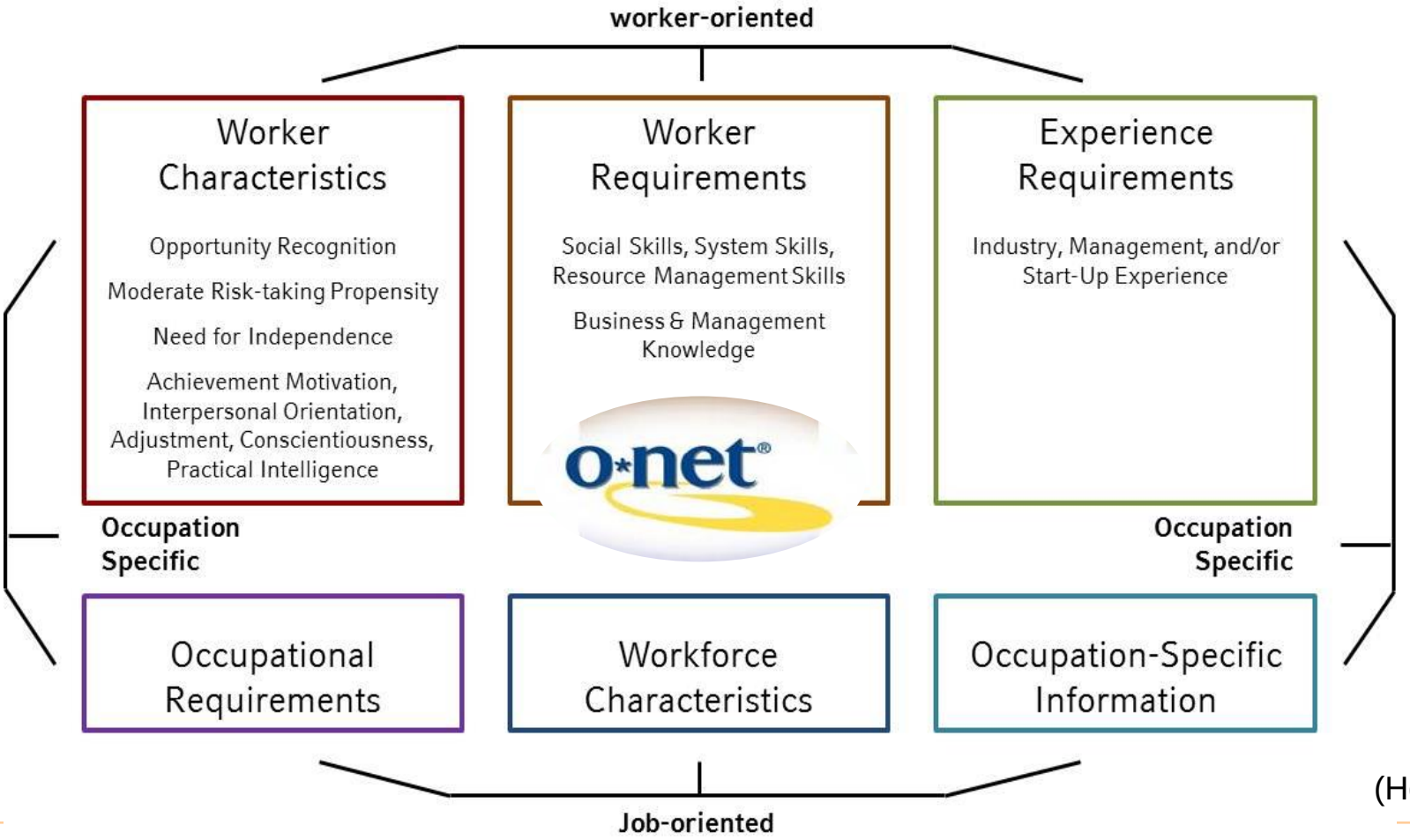
3. How to identify curricular goals?

Systematic literature review for discovering **competence facets for successful entrepreneurial behavior** (Hofmuth, 2014)

O*Net Category	-	0	+	Binominal-test
		Abilities		
Cognitive Abilities	[a]Mar02[6b], Jos06[7], Uus01[3], Ace07[1]	Kot97[5], Wes05[5], Cia04[4], Che98[6], Cal08[3], Cha92[2], Gie12[2], Bar03[1], Sap97[1]	Mit02[5], Bus97[6], Okh10[7], Are05[3], Arm09[3], Bab92[3], Cal95[3], Mit00[3], Nor06[3], Pal95[3], Wes98[3], Lee01[2], Ung09[2], Bar09[1], Box93[1], Gat95[1], Hay12[1], Toc12[1]	
Social Influence	Afz96[6], Box93[1], Cha96[2]	Bat07[1], Kot97[5], Han03[1], Okh10[7], Lee01[2], Cal08[3], Bra97[1], Hor71[1], Toc12[1], Cap10[2]	Bar09[1], Cha92[2], Gat95[1], Bau04[1], Alp90[7], Rau07[1], Are05[3], Che98[6], Uts00[1], Bab92[3], Fre07[1], Beu04[3], Poo06[1], Hin73[3], Kor03[3], Cha94[2]	
Interpersonal Orientation	—	Hmi08[1], Sap97[1], Cia04[4], Gru07[1], Avi06[3], Höh04[1], Cap10[2], Bat07[1], Eva11[1], Bre10[5]	Cal08[3], Mar02[6], Mor05[4], Cha92[2], Hor11[1], Hab07[1], Cha94[2], McV09[3], Sul11[1], Dec09[1], Bar06[1], Dav03[4], Bar09[1], Bab92[3], Che98[6], Kor03[3], Ben09[1], Zha06[3], Bos04[1], Coo94[1], Lee01[2]	*
Adjustment	Afz96[6], Bra97[1]	Lee01[2], For05[6], Bar03[1], Cia04[4], Kot97[5]	But93[1], Dim10[2], Obs11[1], DeT08[4], Bar09[1], Low06[4], Fre00[1], Tat02[4], Bau10[2], Tow10[4], Bar06[1], Wu 06[4], Bau04[1], Mol10[7], [4]C09[1], Gro11[3], Mar05[1], Kor03[3], Rau07[1], Woo99[3], Zha06[3]	*

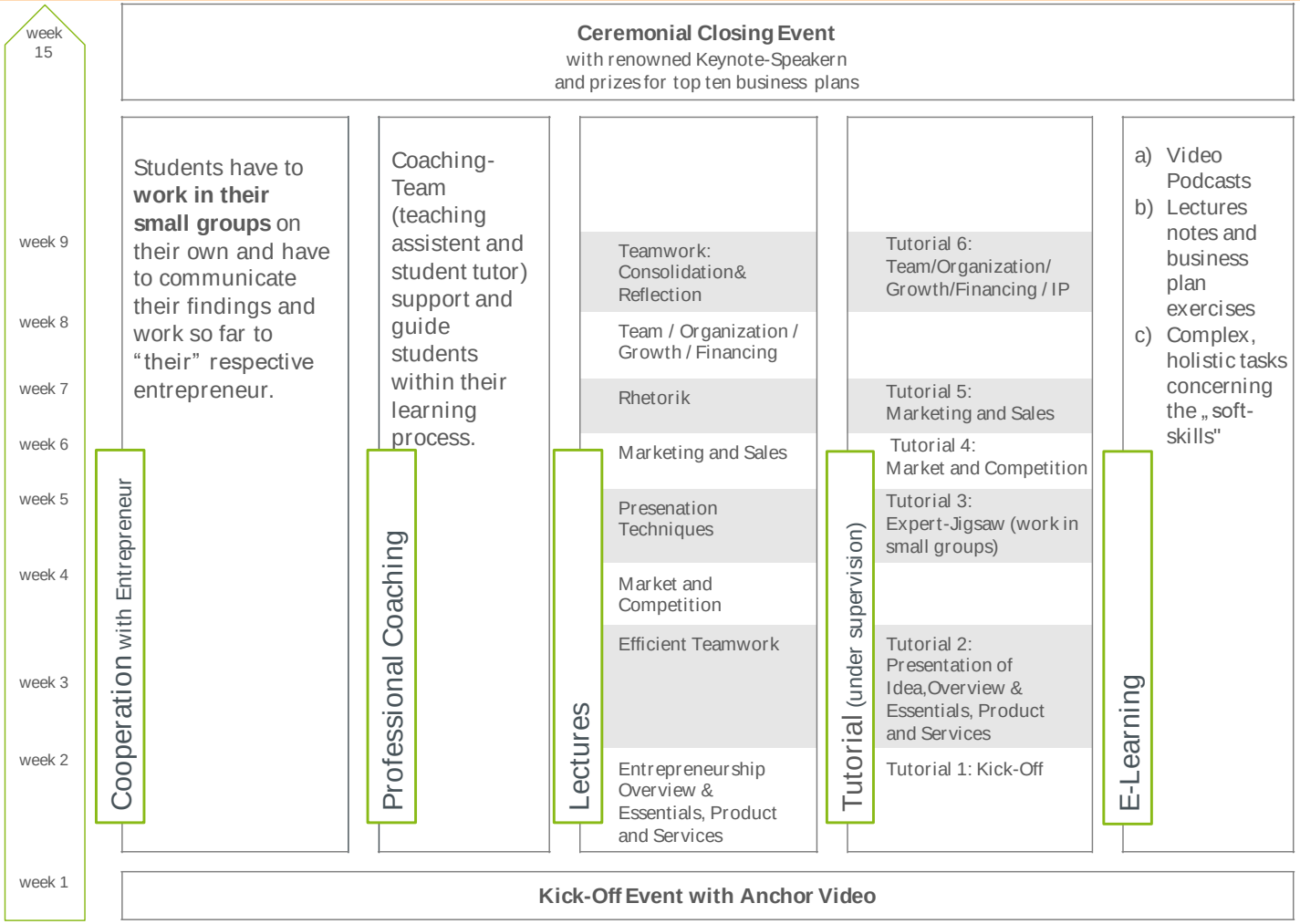
3. How to identify curricular goals?

Analyzing these **competence facets according to the O*NET**



(Hofmuth, 2014)

3. How to compose instructional elements for fostering these competences?



„START with Business Planning" course at LMU Munich:

Compulsory Course within the LMU Bachelor (B.Sc.)

* 2. semester / 6 ECTS
* ~ 600 students
* small groups (4-5 TN)
* 40 selected real entrepreneurs
* Coaches are trained beforehand

(Weber & Funke, 2014)

3. How to evaluate or assess these competences with regard to successful behavior

(Kirkpatrick, 1979)

1. Level
Reaction

- Participants evaluate the mode of delivery

2. Level
Learning

- Self-reports on perceived learning

3. Level
Behavior

- Observed new knowlege and abilities

  (e.g., simulations, role plays, observations
  → *performance-based*)

4. Level
Results

- output criteria: e.g., starting a business

3. How to evaluate or assess these competences with regard to successful behavior

(Weber, Wiethe-Körprich, Bley, Weiß, & Achtenhagen, 2015)

3. Level

Behavior

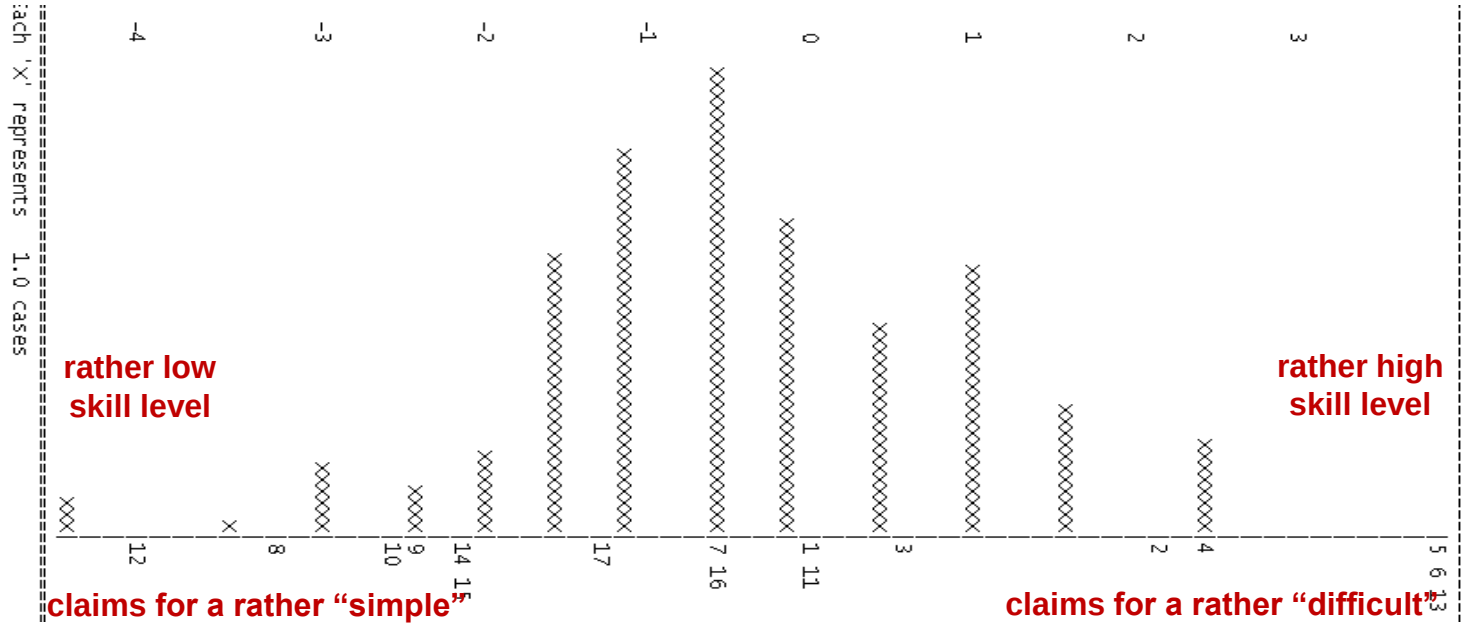
Assumption: uni-dimensional IP-competence

IRT-analysis by ConQuest (Version 2,0; Wu, Adams, Wilson & Haldane, 2007)

Rasch-Model (dichotomous coding: 1 = utilized / 0 = not utilized)

N=205

Wright Map:



rather low skill level

rather high skill level

claims for a rather "simple" situational requirement of an IP-project

claims for a rather "difficult" situational requirement of an IP-project

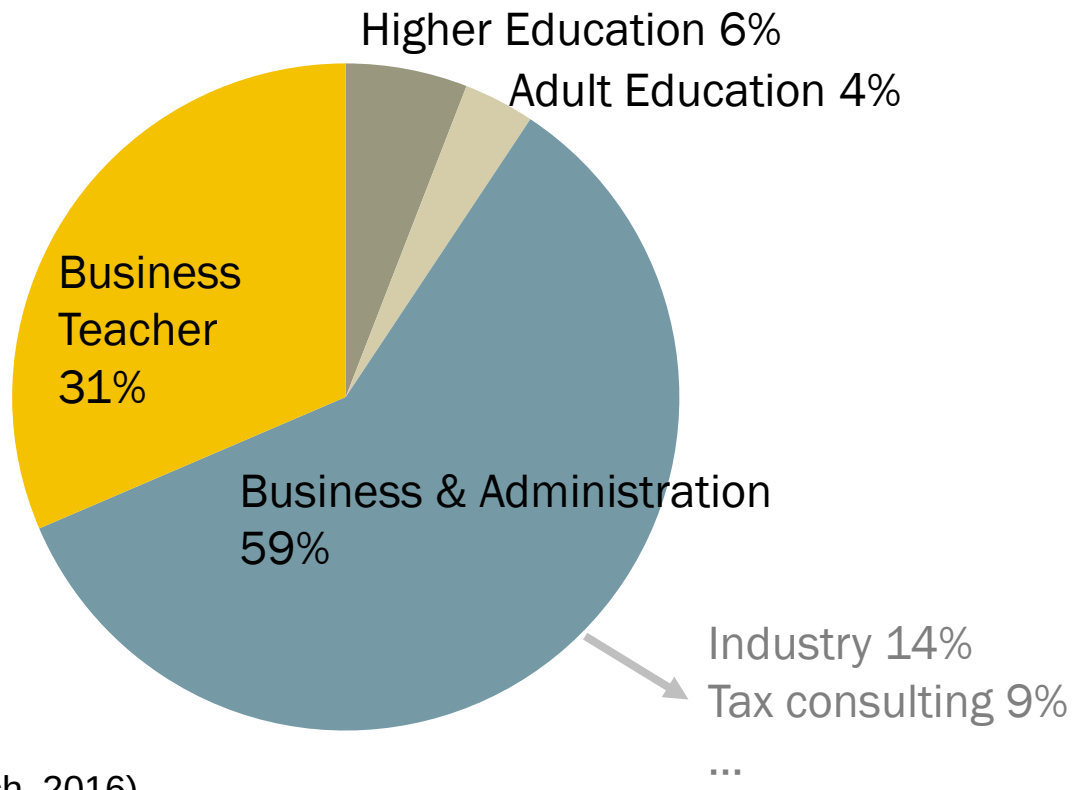
Legend:	
1	1.1
2	1.2
3	1.3
4	2.1
5	2.2
6	2.3
7	3.1
8	3.2
9	3.3
10	3.4
11	3.5
12	4.1
13	4.2
14	4.3
15	4.4
16	5.0
17	6.0

3. Suggestions from Graz – baseline

Master Program
“Business Education & Development”
University of Graz, Austria:

- Polyvalent qualification
- Alumni survey
  → Occupational fields

N=407



(Zehetner, Stock & Slepcevic-Zach, 2016)

3. Suggestions from Graz – learning opportunities

Semester	Required Course	ECTS	Content	Methods
2.	**Learning Organization**	4	Corporate culture, leadership, organizational development	Workshop, Reflection
3.	**Entrepreneurship Education & Business Ethics**	4	Economic thinking, social changes and their impact on ethics, businesses and economy	Discussion, case processing
3.	**Practice Firm & Quality Management**	6	Running a practice firm and acting on the national & international practice firm market	Business simulation, World Café
1.-5.	**ePortfolio I, II, III**	3	Reflection of professional, social, self competences	ePortfolio
Elective Course				
SBWL		24	Corporate Leadership and Entrepreneurship	Lecture, case study, seminar
Master thesis		20	Research question, method, thesis	Scientific writing
TIMEGATE		3 Modules	Transfer for Management and Entrepreneurship: Awareness, Training und Employability	business planning, coaching, transfer

3. Suggestions from Graz – example Practice Firm/Virtual Enterprise

Instructional means to foster entrepreneurship behavior: (Riebenbauer & Stock, 2015)

Entrepreneurial autonomy	• Practice firm strategy	• SWOT-Analysis
	• Mission statement	• Business plan
Vocational autonomy	• Department goals	• Controlling report
	• Team leader	• Online trading day
	• Meetings	• Tops-Flops-Analysis
Self-Marketing & Personal autonomy	• Application procedure	• Self assessment • Reflection
	• Individual learning goals	• Reflection of role as entrepreneur, worker, learner, potential teacher
	• Feedback	

3. Suggestions from Graz – assessment measures Practice Firm

(Kirkpatrick, 1979)

1. Level
Reaction

- Course evaluation of the mode of delivery
- Oral feedback

2. Level
Learning

- Reflection reports on perceived learning
- Practice Firm Portfolio
- (Test)

3. Level
Behavior

- Internal & external assessment with 360ºFeedback
- Skills demonstration

4. Level
Results

- Turnover on the Practice Firm market
- Business reports & planning and suggestions for countinous improvement

3. Suggestions from Graz – assessment program level

(Kirkpatrick, 1979)

1. Level
Reaction

- Separate course evaluations
- Program evaluation (only every 5–10 years)

2. Level
Learning

- ePortfolio (competence portfolio)

3. Level
Behavior

- Performance student teaching
- Performance events, final project

4. Level
Results

- Alumni survey (Zehetner, Stock & Slepcevic-Zach, 2016)
  - 4% self-employed, 16% partly self-employed
  - 12,8% leadership position

3. When to start with regard to the life-span?

Children | Adolesents | Adults | Seniors

http://www.businessinsider.de/11-jaehrige-limonade-2016-03

https://www.youtube.com/user/TheSimpleClub

http://www.sueddeutsche.de/muenchen/starnberg/starnberg-kuehles-geschaeft-1.3141773

https://www.gruenderszene.de/allgemein/flixbus-mobility-riese-game-changer

https://www.vox.de/cms/die-hoehle-der-loewen-2017-dagmar-woehrl-und-ralf-duemmel-kaempfen-um-morotai-4129997.html

http://www.spiegel.de/wirtschaft/unternehmen/senioren-als-unternehmer-wenn-alte-menschen-gruenden-a-1026844.html

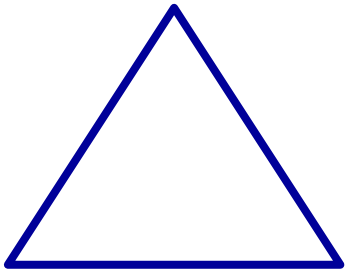
https://www.kuchentratsch.com/

Kindergarden | **School** | **Bachelor / Master** | **Continuing Education**

4. Discussion and critical reflection

Curricular goals

Which competences are needed for an successful entrepreneurial behavior resp. for managing future working life?



Assessment measures

How can we secure that this entrepreneurial behavior is acquired?

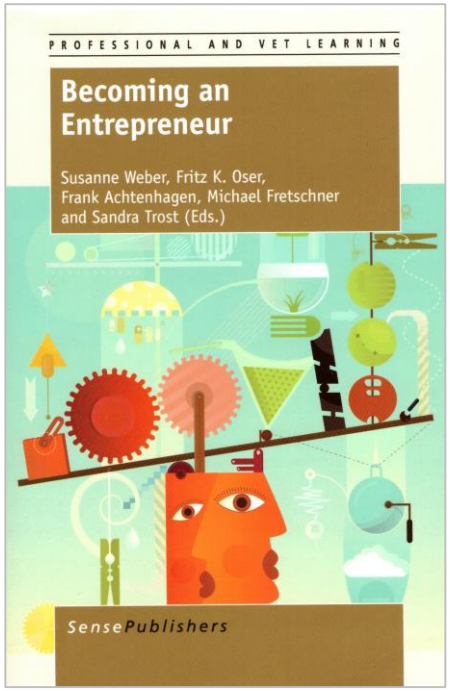
Instructional means

Which instructional means should be used to foster such entrepreneurial behavior?

Start across the life-span

When to start with teaching such entrepreneurial behavior with regard to the life-span?

Contact and further readings



Weber, Oser, Achtenhagen, Fretschner & Trost (Eds.) (2014). *Becoming an Entrepreneur.* Rotterdam, Boston, Taipei: Sense.

with introduction and summary of Weber et al. and articles of

- Benninghoff & Weber
- Hofmuth
- Slepcevic-Zach, Stock & Tafner
- Weber & Funke

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