

# Practical learning for entrepreneurial competence. A study on learning activities and competencies of entrepreneurs in innovative horticulture

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# The competence train is riding and everybody wants to ride along



# Many educational experts are very curious about competence development



# Some are a bit ignorant



## Workplace learning – aimed at employees

- Low skilled workers (Raemdonck, 2005)
- Policemen (Doornbos, 2006)
- Nurses (Berings et al., in press)
- What about employers – entrepreneurs?



## Field of study

- Horticulture under glass in NL
- 15% growth rate from 2001 to 2005
- N of holdings 7,060 in 2001; 5,650 in 2005



# Trends

- High tech
- Knowledge farming
- Diversification
- Internationalization
- Entrepreneurship
- Scale enlargement
- Cluster approach



## Research questions

- evaluation of competencies that are relevant for entrepreneurship by entrepreneurs, internal co-workers (employees) and external consultants?
- present competence strengths and weaknesses of entrepreneurs as perceived by entrepreneurs themselves, their co-workers and consultants?
- learning activities that entrepreneurs perform and how are they related to the entrepreneurial competencies needed?





# Theoretical context

- Entrepreneurship
  - ◆ Chandler and Jansen, 1992
  - ◆ Gartner, 1988
  - ◆ Man et al, 2002
  - ◆ Shane, 2003
  - ◆ Gielen et al, 2003
  - ◆ Lans et al, 2005
- Competence
  - ◆ Mulder, 2001
  - ◆ Biemans et al, 2004
  - ◆ Mulder and Weigel, 2006
  - ◆ Weigel and Mulder, 2006
  - ◆ Wesselink, 2006



# Participants in the study

- Entrepreneurs
- Committee Members  
Agriculture and Horticulture  
Organizations Netherlands
  - about twenty of these committees
  - about 200 members of these committees in total



## Research group

- 1 or 2 committee members were nominated
- Competence assessment
  - Entrepreneurs self assessment
  - Assessment by an internal expert
  - Assessment by external expert
- Data of 10 entrepreneurs collected



# Assessment instrumentation

- Assessment, a questionnaire
  - general questions
  - 22 competencies (Man et al, 2002)
  - Statements
- Answering categories per item
  - Level of development of competency
  - Extent to which there is possibility for development
- Two five-point scales
  - 1 = very limited
  - 5 = to a very high extent





# Competencies

- Learning orientation
- Self management
- Planning
- Market orientation
- Result orientation
- Networking
- Leadership
- Problem analysis
- Organizing
- Conceptual thinking
- Negotiating
- Persuasiveness
- Vision
- General awareness
- Management control
- Value clarification
- Judgement
- Team work
- Strategic orientation
- HRM/HRD
- International orientation



# Average Competence Assessment

Entrepreneurs	Av Score self assessment	Av Score assessment by co-worker	Av Score assessment by consultant
1	3.36	3.50	3.41
2	3.18	3.23	3.19
3	2.59	3.27	3.64
4	3.27	3.55	3.50
5	2.91	3.05	2.77
6	2.86	3.41	3.00
7	2.86	3.50	3.38
8	3.05	4.09	3.73
9	3.73	2.86	3.68
10	3.14	3.14	4.09
<b>Average</b>	<b>3.10</b>	<b>3.36</b>	<b>3.44</b>



# Spearman correlation coefficients

Entrepreneur	$R_s$ Self-Coworker	$R_s$ Self-consultant	$R_s$ Coworker-consultant
1	-.143	.590(**)	.147
2	.137	.427	.351
3	.225	.429(*)	.042
4	.326	.068	-.004
5	.219	.245	.556(**)
6	-.080	.493(*)	.204
7	.045	-.275	.075
8	.069	.192	.232
9	-.050	-.377	.081
10	.225	.377	-.091
Average	0.097	-0.021	0.100



## Top and bottom 3 strengths and weaknesses

Entrepreneurs Competencies	1	2	3	4	5	6	7	8	9	10	N+	N-
Learning orientation		+	+			+			+	+	5	0
Self management			+		+	-	+		+		4	1
Planning	+			+				+			3	0
Strategic orientation			-	-				-			0	3
HRM/HRD	-		-	-	-		-			-	0	6
International orientation	-		-	-	-		-	-	-	-	0	8





# Frequency of learning activities

Entrepreneurial learning activity	n	%
Reflection	21	19.8
Observation	16	15.1
Experiment	12	11.3
Performing occupational tasks	11	10.4
Checking information	9	8.5
Discussion	9	8.5
Conversation	6	5.7
Receiving feedback	6	5.7
Asking a specific question	5	4.7
Holding onto a personal vision	4	3.8
Replication	4	3.8
Acquiring knowledge through training	3	2.8
	<b>106</b>	<b>100.0</b>





# Three portraits of entrepreneurs

- Rudy the reflector
- Olaf the observer
- Eric the experimenter



# Learning activities by competence cluster

Competence cluster	N of learning activities	%
Strategic	28	26
Opportunity	21	20
Organizing	21	20
Technical-Occupational	19	18
Relational	10	9
Commitment	5	5
Conceptual	2	2
<b>Total</b>	<b>106</b>	<b>100</b>



## Conclusions

- Competencies are evaluated differently
- Learning orientation as competence strength
- Entrepreneurs are also good in self-management
- International orientation weak
- Human resource management weak
- Entrepreneurship is a rich, authentic and powerful learning context



## Conclusions

- Learning by looking at examples
- Need for role models
- Mistakes can be learning sources
- Sharing mistakes for mutual learning
- Competence assessment + mapping learning activities are powerful communication tools



## Conclusions

- Helping combined evaluation from inside and outside the company
- Learning from outside
- Solving the paradox of inward and outward orientation
- Competence assessment: deeper self-reflection + further performance improvement
- Entrepreneurs were open to this





# Learning metaphors

- traveling
- trekking
- exploring
- *entrepreneurial learning as climbing*

