# The Development of Entrepreneurship as a Core Competence
# in Interdisciplinary Study Environment
## Aarhus University, 29 May, 2012

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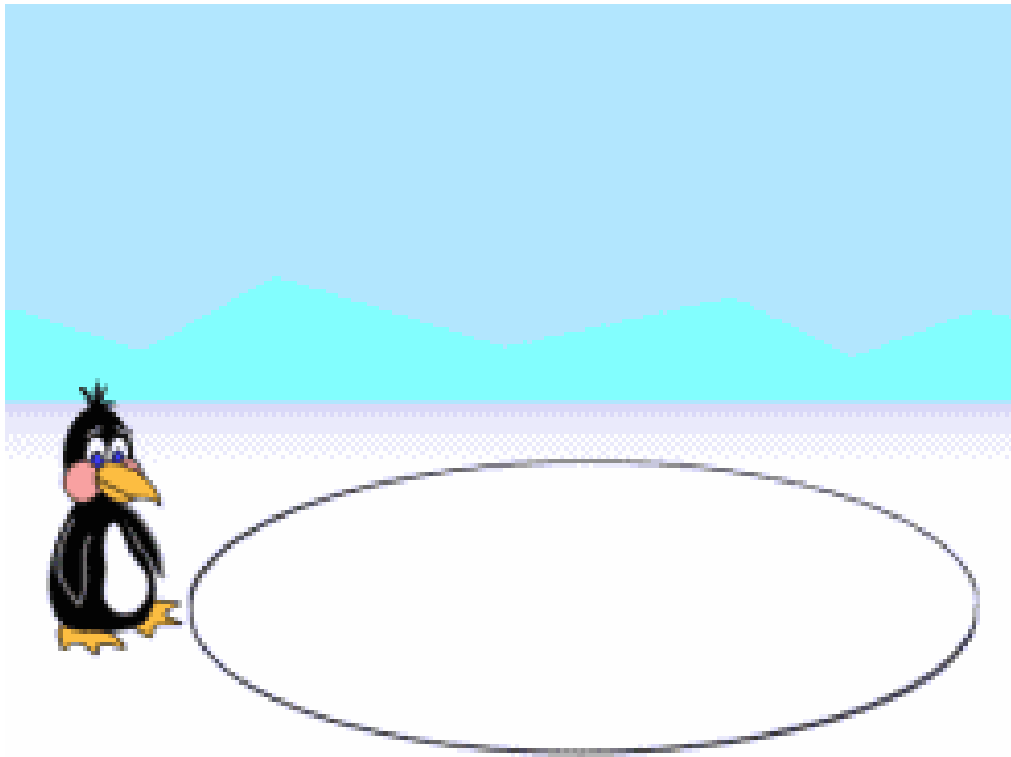Asoc. prof. Saemah Rahman (Universiti Kebangsaan Malaysia)
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# The first results of research stage 1

"**The development of teachers' professional competence for the work in interdisciplinary study environment for linking studies to real life and promoting students' entrepreneurship**"

# The aim of the research



To research the course of the development of teachers and students' entrepreneurship as a core competence while implementing in practice the **holistic interdisciplinary entrepreneurship promoting teaching and learning** (**HIDEPTL**) methodology elaborated in the pre-project stage.

# **Research questions**

1. What is the matter of entrepreneurship?

2. What are the fundamentals of the holistic interdisciplinary entrepreneurship promoting teaching and learning (HIDEPTL) methodology?

3. What are the outcomes of the implementation of the HIDEPTL for developing teachers and students' entrepreneurship in practice?

# Research methods

## Pre-project stage

- Theoretical analysis of scientific literature on entrepreneurship, entrepreneurship education and development, holistic and interdisciplinary education.

- Qualitative content analysis.

- Modeling.

## Research stage 1 of the project

- Electronic learning diaries.

- Semi–structured electronic interview on the essence of learning in interdisciplinary study environment.

- Qualitative content analysis of the text of teachers and students' reflections.

# Description of the research

## Pre-project stage

1. The research of the matter of entrepreneurship and elaboration of the holistic interdisciplinary entrepreneurship promoting teaching and learning methodology, HIDEPTLM (2005-2010)

2. Pilot project for trying out HIDEPTL methodology in one secondary school in Riga (2010 March - May ).

# Research stage 1 (Oct. 2011 – March 2012 )

## Data collection: teachers and students' reflections in the electronic learning diaries



**Phase 1:** Training of teachers; analyzing and solving interdisciplinary (ID) tasks in the context of entrepreneurship.

**Phase 2:** Creating of ID problems by mixed groups of teachers of traditionally remote study disciplines.

**Phase 3:** Teachers' work with their students based on the analysis and solution of the ID problems created by them.

# Research stage 1 (March 2012 – Sept. 2012 )

## Data processing: content analysis of the text of teachers and students' reflections



1. Open coding for revealing the first achievements, hindrances and perspectives – (March – May, 2012)
2. Using as metacodes the criteria and as conceptual codes - the indicators of entrepreneurship determined in K. Oganisjana's PhD research "The development of students' enterprise in study process" (June-Dec. 2012).

# Participants of the research from Latvia



1. **125 teachers** of 5 secondary schools from all four regions and the capital of Latvia.

2. Their **300 students** of form ten.

# Universiti Kebangsaan Malaysia, 25 Nov. 2012

# Participants of the research from Malaysia



1. **50 teachers** of 2 secondary schools from one district in the state of Selangor.

2. Their **60 students** of form four (16years old = Grade 10).

# The content of the electronic learning diaries

- "What theme was considered today?"
- "Are you satisfied with today's activities?"
- "Today I managed to…"
- "Today I liked …"
- "I have realised that for me it is difficult to …"
- "Today I didn't manage to …"
- "… helped me today"
- "In the next activities I would like to change…"
- "What has changed in your theoretical view on interdisciplinary teaching    and learning?"
- "What has surprised you in today's activities?"
- "How did you work together?"
- "Explain how you arrived at the solution of problems during today's activities."
- "Before solving a task I …",
- "How will you use in real life what you acquired in today's interdisciplinary activities?"
- "Thank you for cooperation! Your comments".
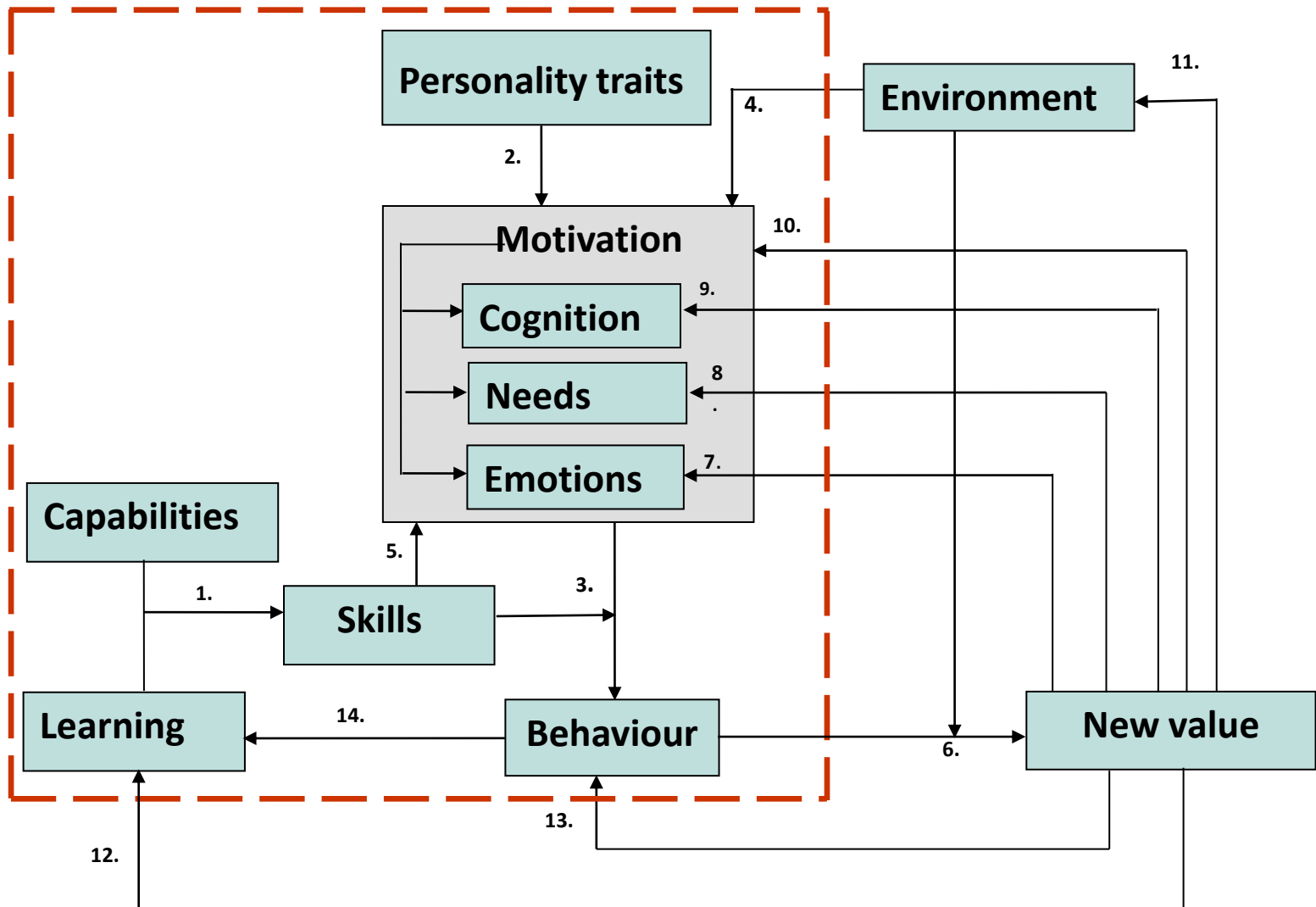
# The main outcomes of the research (1)

Entrepreneurship is a dynamic system of individual's causally interrelated personality traits, motivation, cognition, needs, emotions, abilities, learning, skills and behaviour, on the basis of which an individual or a group of individuals interact with the environment **for identifying, generating and realizing opportunities into new values**.

# The main outcomes of the research (2)

**The four pillars of the holistic interdisciplinary entrepreneurship promoting teaching and learning (HIDEPTL) methodology**
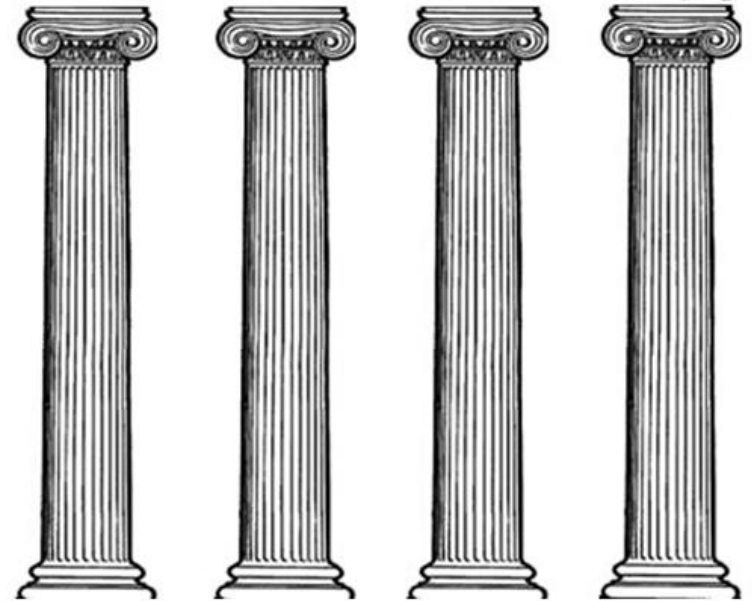
1. Holistic perspective
2. Interdisciplinarity
3. Experiential learning by doing
4. Framework of attributes of entrepreneurship promoting study process

**The holistic structural–functional model of entrepreneurship (Oganisjana, 2010)**

# The main outcomes of the research (3)

| Phase | The objectives for the teachers | The new value created by the teachers |
|---|---|---|
| 1. | To solve, analyse, comprehend and create ID activities; to understand how ID study environment may promote entrepreneurship | **New knowledge** of creating ID study maximally driven closer to real life situations. |
| 2. | To elaborate HIDEPTL lessons in mixed teachers' teams of traditionally remote study disciplines | **New skills** in creating ID tasks; **new level of social skills** in collaborating with colleagues of different study disciplines. |
| 3. | To try out the HIDEPTL lessons created in phase 2 with students; to analyse the results | **New ID tasks; new experience, attitude, behaviour, needs and motivation** for working in ID study environment. |

# The main outcomes of the research (5)

| Phase | The teachers appreciated ... | Emotions and feelings |
|---|---|---|
| 1. | 1. The ID tasks and the study content.<br>2. The new opportunity of working in the ID study environment close to real life situations.<br>3. The professionalism of the project team.<br>4. The friendly and democratic atmosphere of the training and how it was organized. | Professional curiosity and interest caused by the new HIDEPTL approach. |
| 2. | 1. The new type of cooperation with colleagues: creative ideas, sense of belonging and support.<br>2. Discussion and analysis of the content and forms of ID tasks; pedagogical provocations.<br>3. The recommendations given by the project team. | Creative doubts and satisfaction while creating ID lessons. |
| 3. | 1. The team work with colleagues while realizing their ID lessons in practice with students.<br>2. The great interest, enthusiasm, positive attitude, discipline, creativity and attractiveness of students while working in the new ID environment.<br>3. The creative results of students' work. | Inspiration and positive emotions got from the work with students while trying the HIDEPTL. |

# "Are you satisfied with the lesson?"

**Teachers**:

50% - very satisfied;

38% - satisfied;

11% - rather satisfied than not;

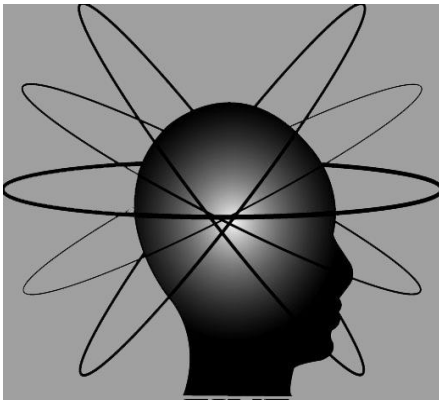1% - rather not satisfied than satisfied.

**Students:**

39% - very satisfied;

47% - satisfied;

11% - rather satisfied than not;

3% - rather not satisfied than satisfied.

# **Problems to be overcome**

1. The creation of HIDEPTL lessons is a time-consuming process.
2. There are little incentives for teachers to spend their time and effort for creating teaching and learning environment different from the routine one.
3. Teachers express their worries whether inspecting institutions will be prepared to appreciate and see educational value of flexible atmosphere of ID activities.
4. This type of studies require more attention, concentration, creativity and intensive work of students than in traditional lessons. Therefore special attention should be paid to the proper organisation of students' work and rest.

# Thank you for attention!