



AQU Conference, Universitat de Lleida, 23 d'octubre de 2007

# La práctica en el disseny de plans d'estudis en les titulaciones de grau

## Lleida, 23 d'octubre 2007



# Examples on how to Structure a PBL Programme

Egon Moesby, Aalborg University, Denmark

Head of Studies,

Head of Department,

Director of International Consultancy under

UNESCO UCPBL Chair at AAU

Member of The Quality Assessment Committee (CAQ) under QUA



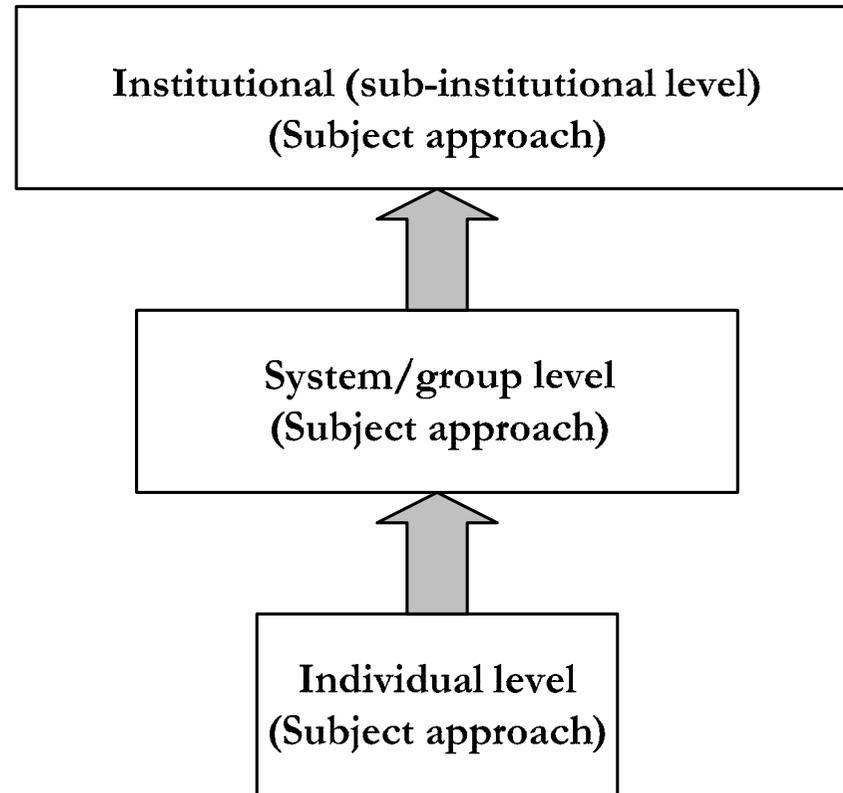
# Disposition

- 1. Various PBL Models and their Alignment to Local Demands and Possibilities**
- 2. Designing of learning outcomes – alignment of subjects ;**
- 3. What, when and how - on students learning opportunity**
- 4. Assessment of learning outcomes**
- 5. Results and experiences of the PBL approach**
- 6. Questions**

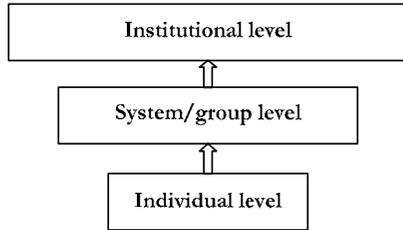


AQU Conference, Universitat de Lleida, 23 d'octubre de 2007

# 1. Various PBL Models and their Alignment to Local Demands and Possibilities

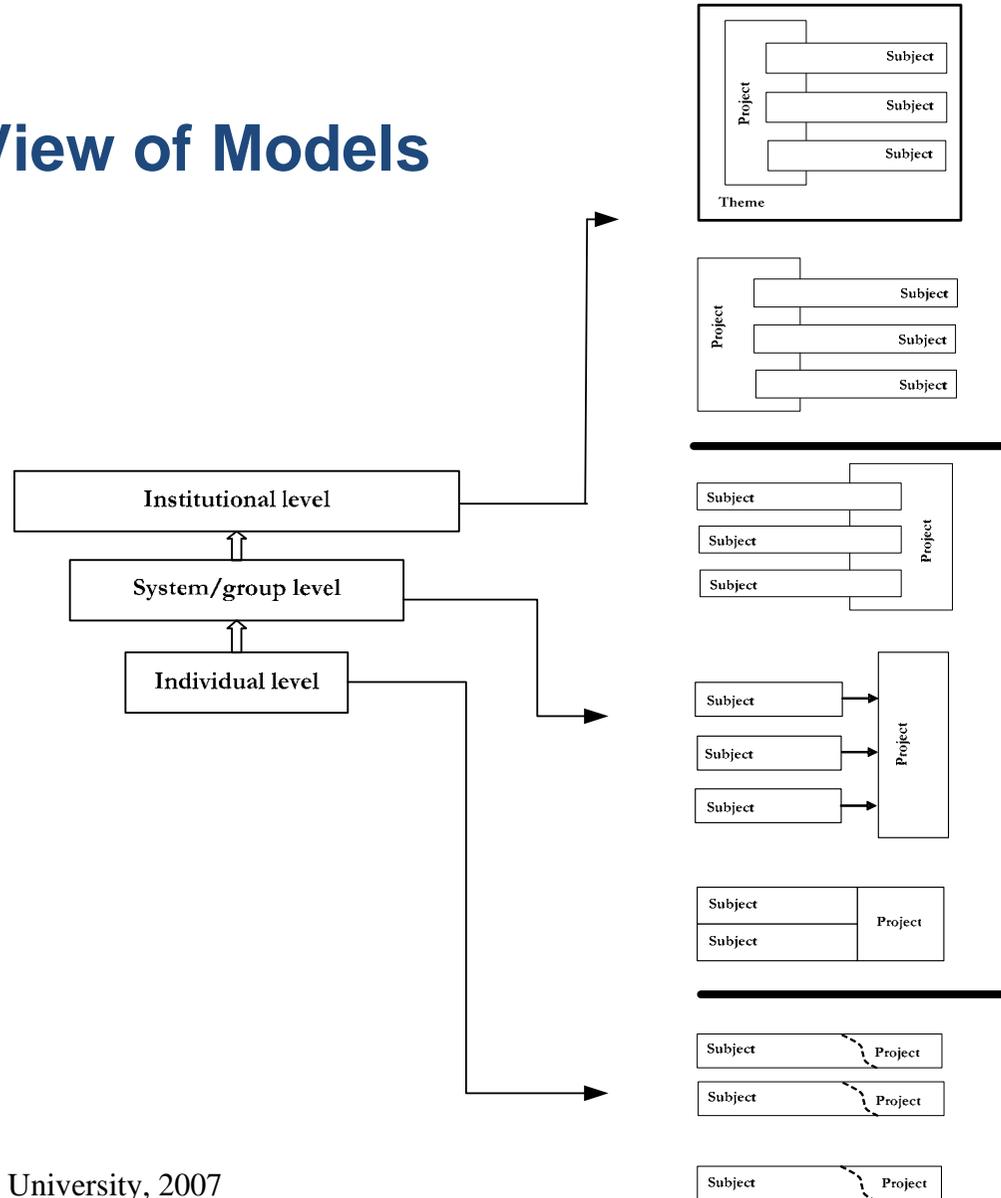


## A taxonomy of implementation



**Individual Level**  
**Subject approach**

# Overall View of Models

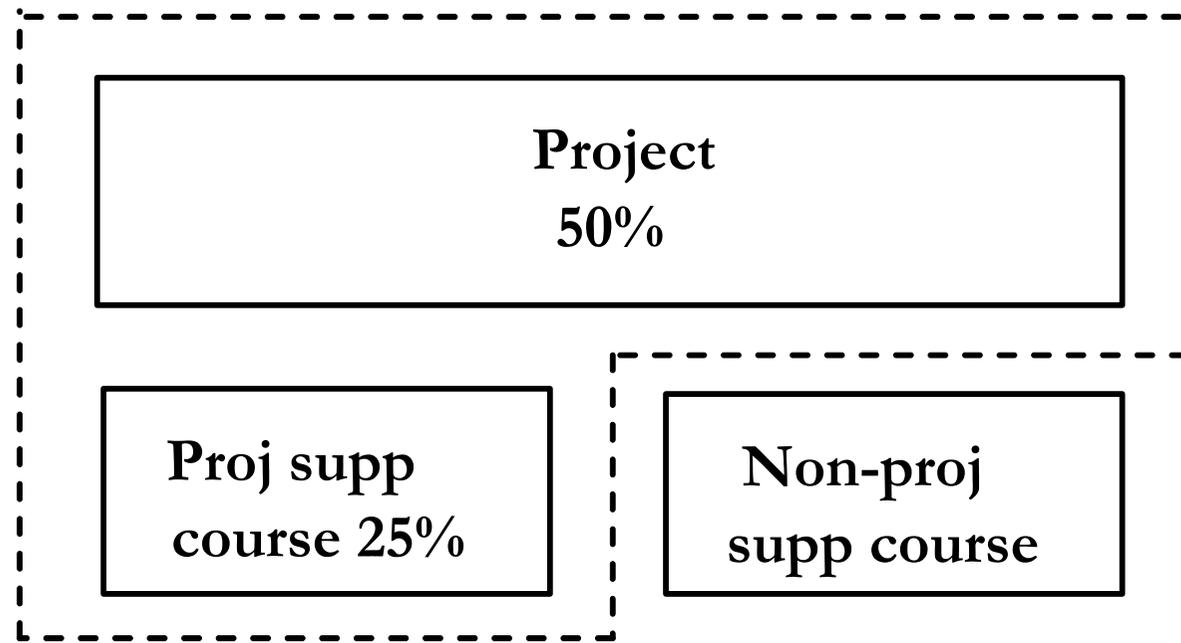


AQU Conference, Universitat de Lleida, 23 d'octubre de 2007

Moesby, E. 2004. "Reflections on making a change towards Project Oriented and Problem-Based Learning (POPBL)", World Transactions on Engineering Technology Education (WTE&TE), UICEE, Monash University, Australia. Volume 3, No. 2, December 2004.

# The Aalborg “Standard Model”

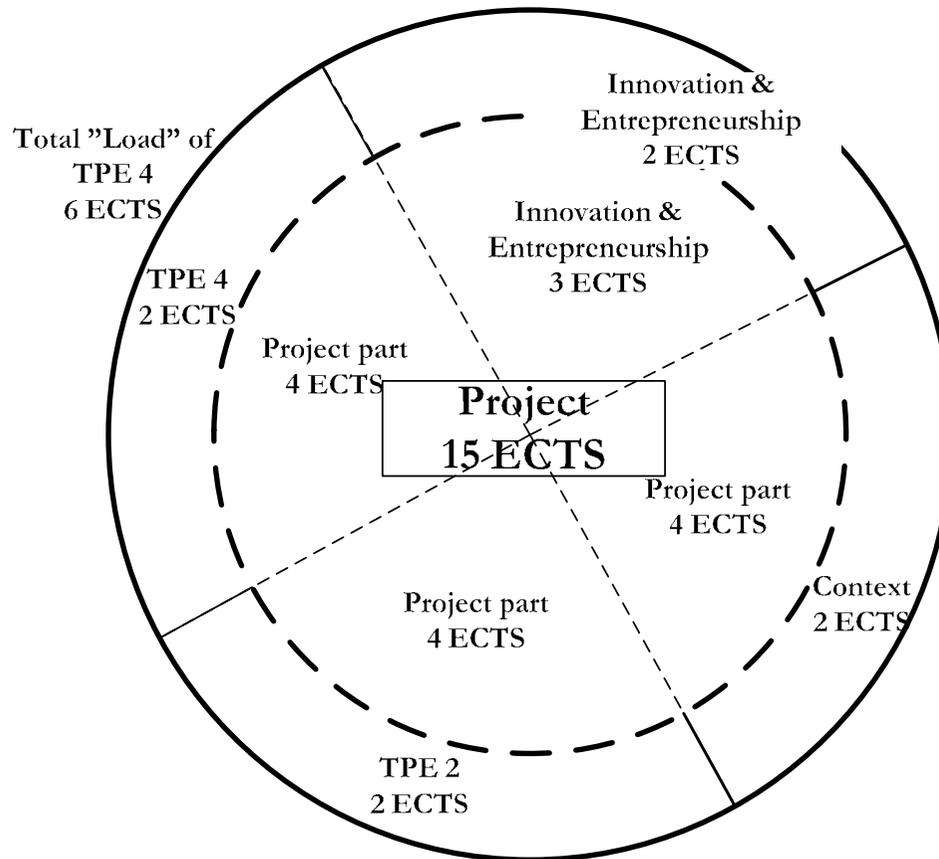
AQU Conference, Universitat de Lleida, 23 d'octubre de 2007



Non Project Supporting Subjects 7 ECTS

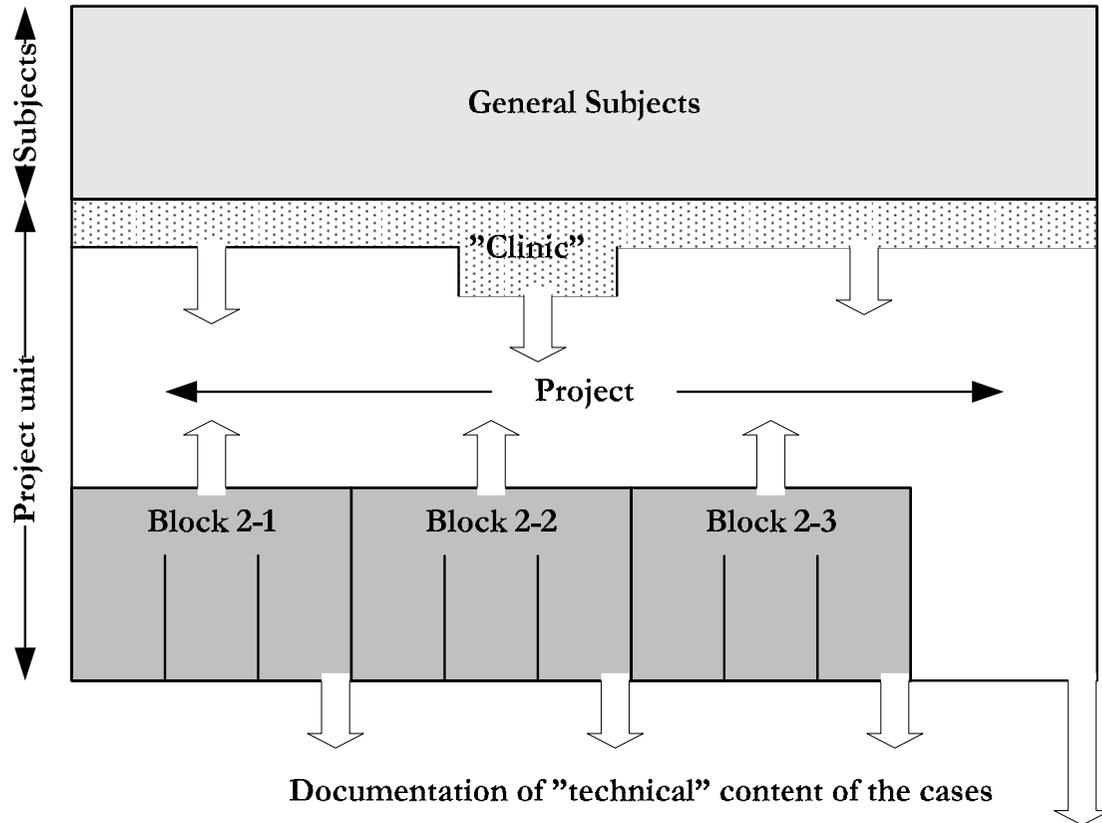
AQU Conference, Universitat de Lleida, 23 d'octubre de 2007

## The same model – Just a different presentation



# The PCC – Model for Medicine

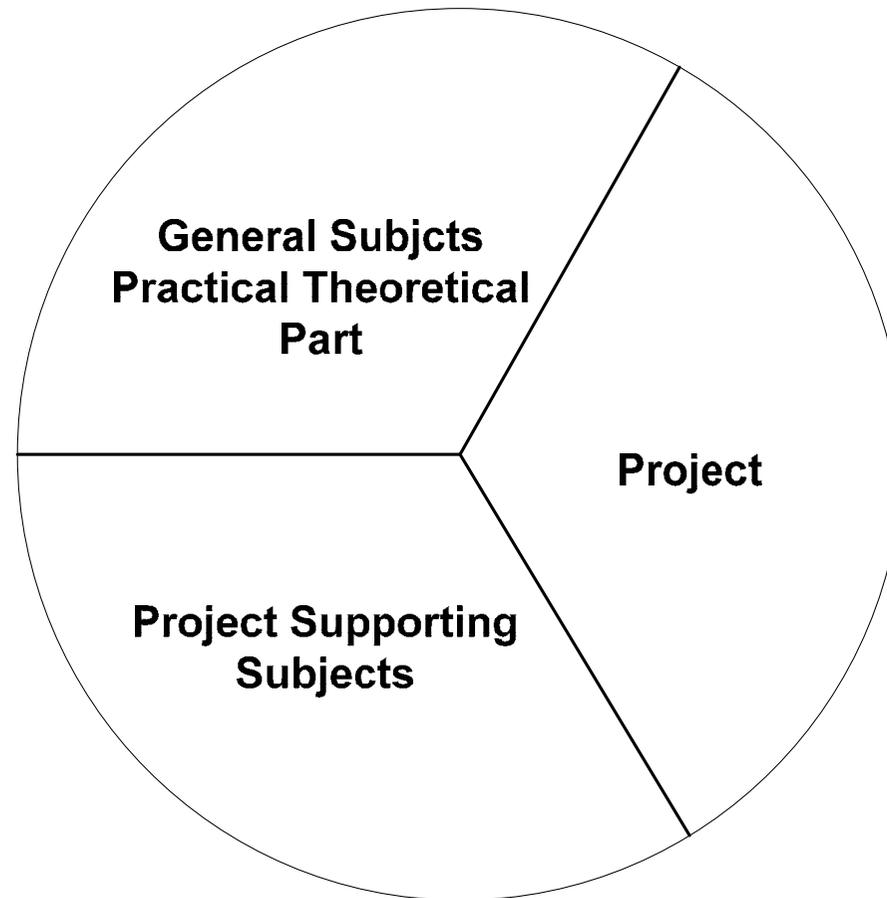
AQU Conference, Universitat de Lleida, 23 d'octubre de 2007



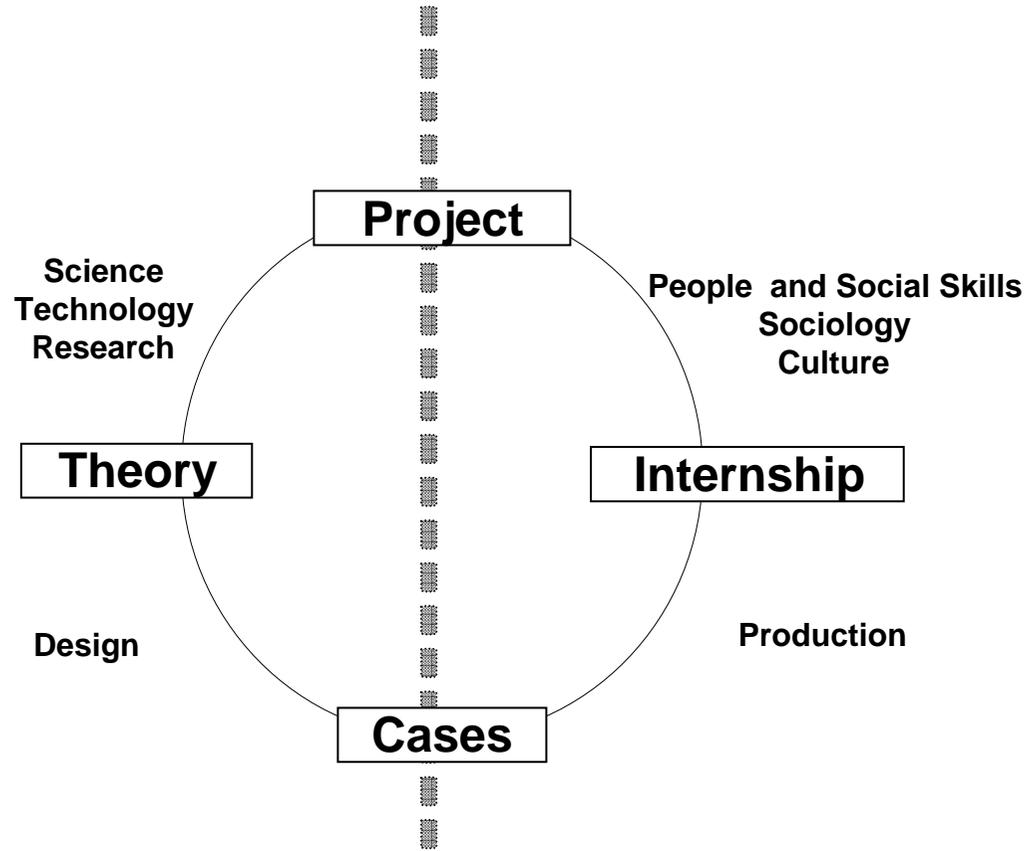
© E. Moesby, Aalborg University, 2006.

Project exam on application and  
on personal and social  
competences

# Bachelor in Sport Science



# New model for not yet published programme



**NOTE: Not all elements are included  
as the programme is not public yet**



AQU Conference, Universitat de Lleida, 23 d'octubre de 2007

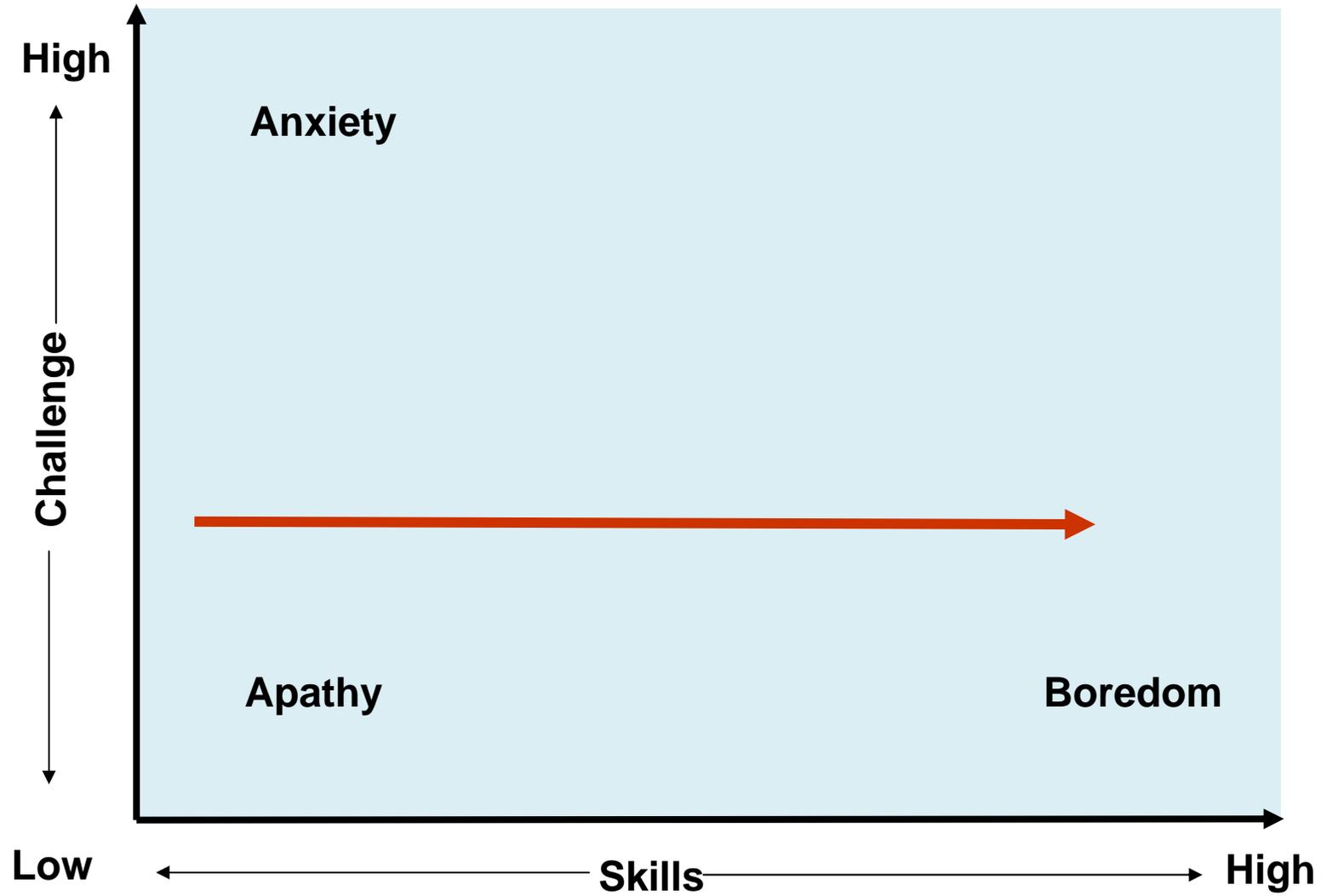
## **2. Designing of learning outcomes and Alignment of Subjects**



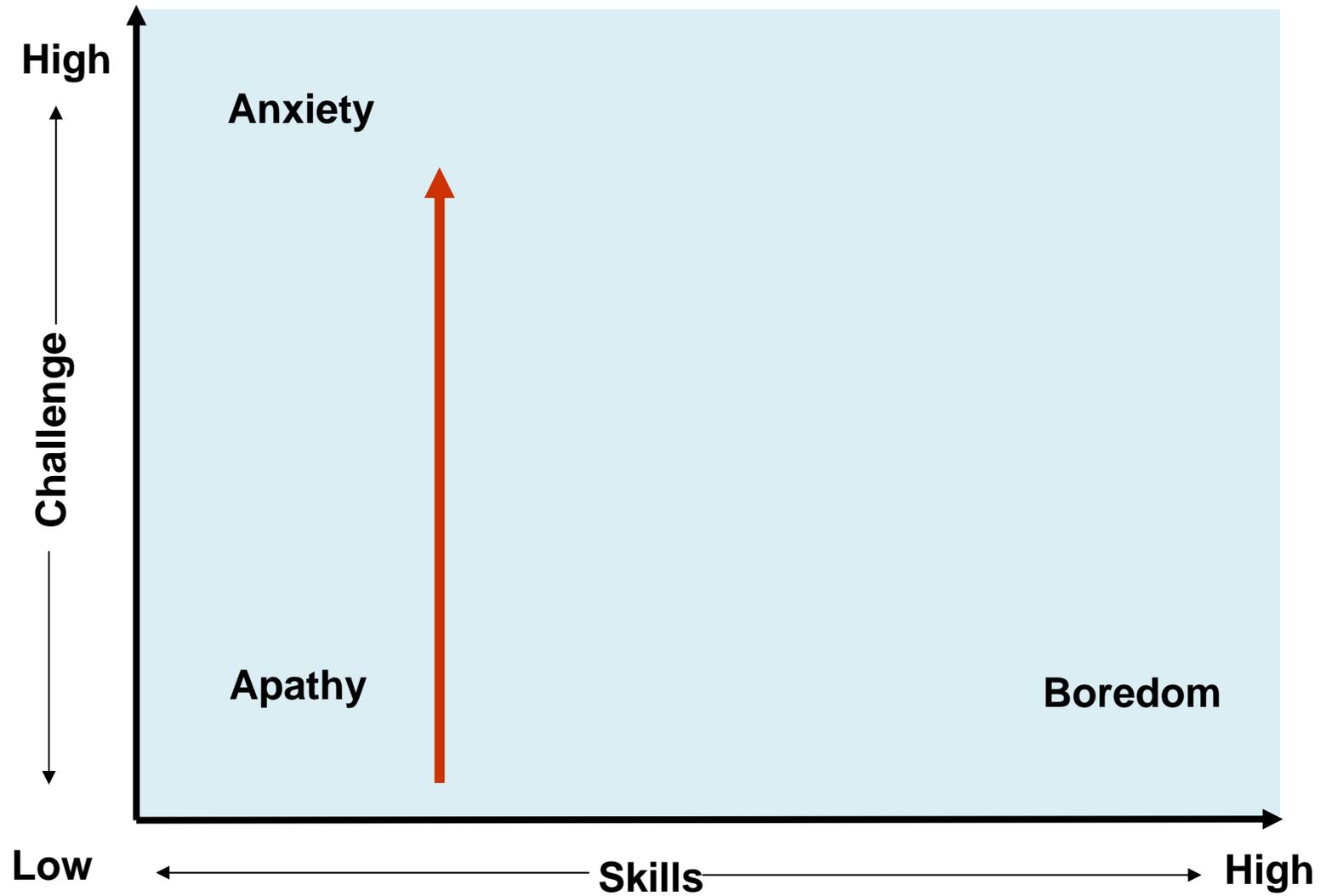
AQU Conference, Universitat de Lleida, 23 d'octubre de 2007

# ***Finding the balance in project design***

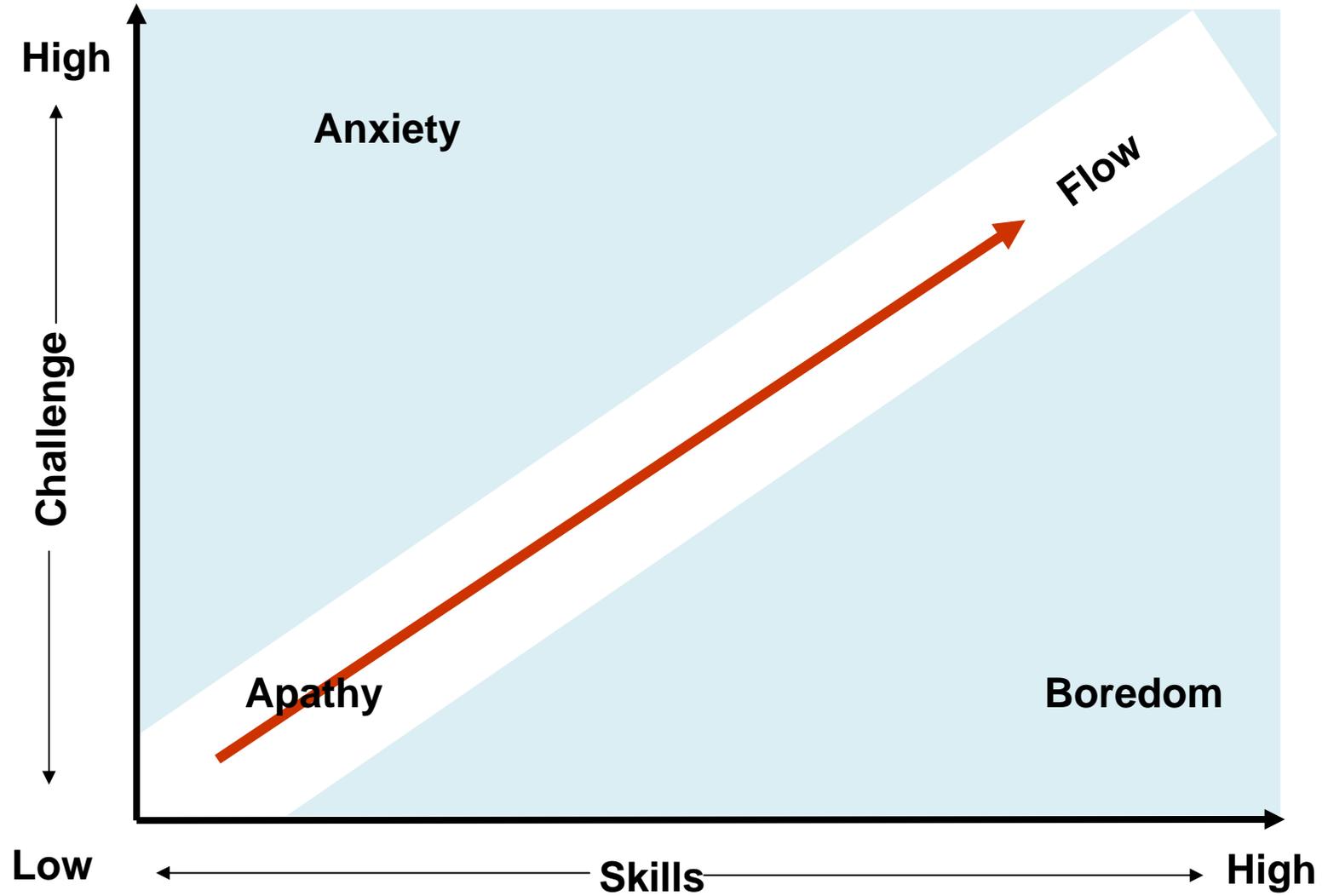
AQU Conference, Universitat de Lleida, 23 d'octubre de 2007



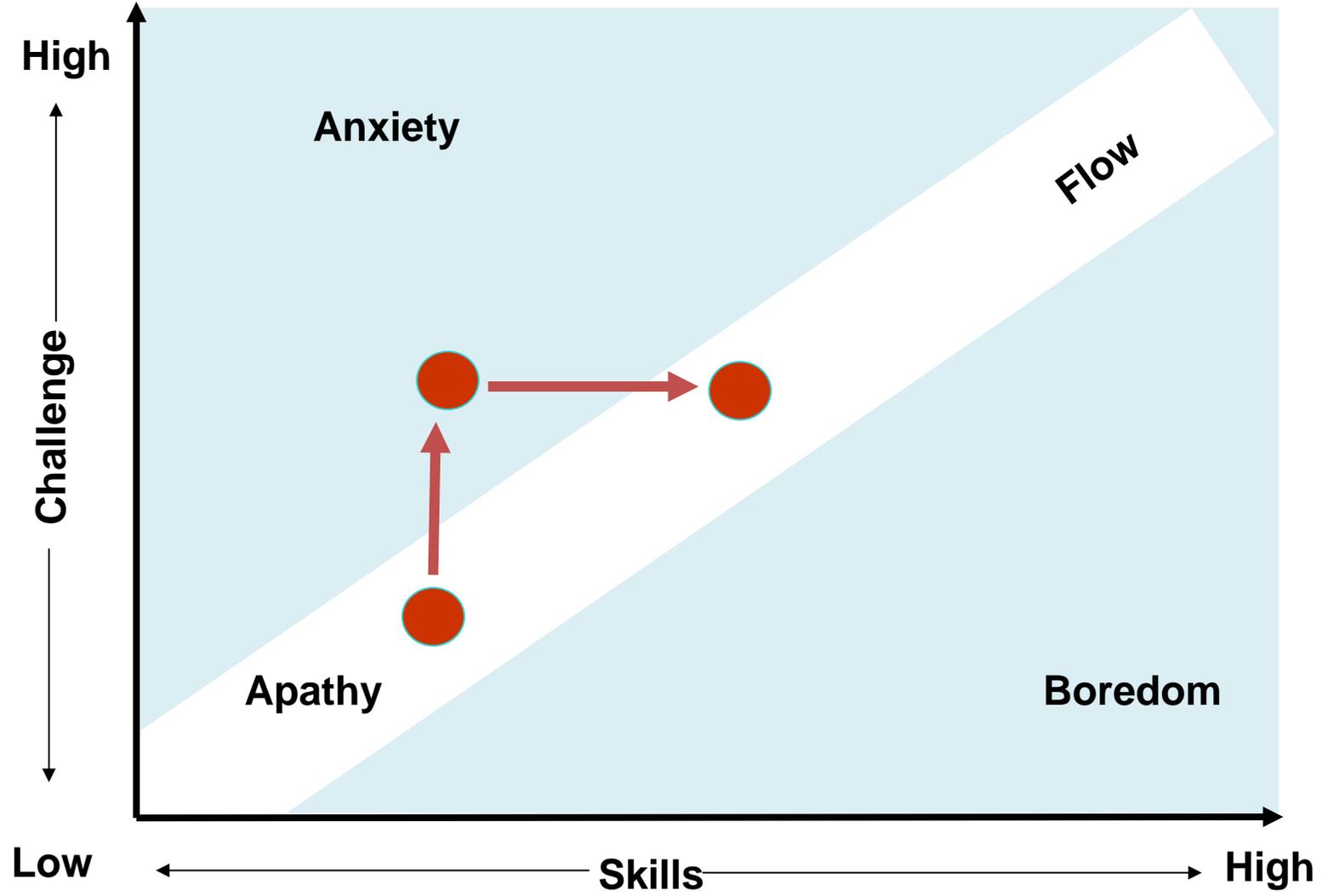
AQU Conference, Universitat de Lleida, 23 d'octubre de 2007



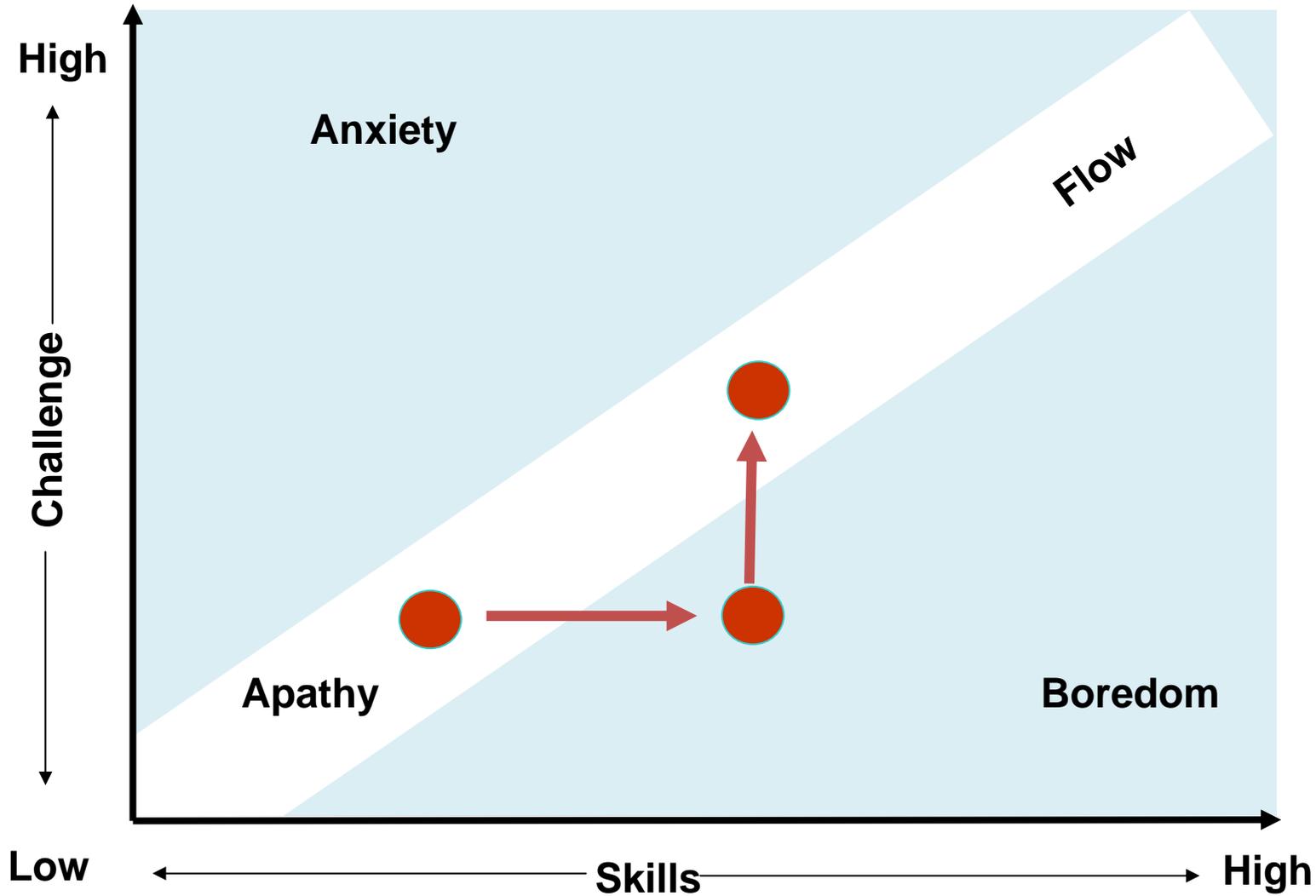
AQU Conference, Universitat de Lleida, 23 d'octubre de 2007



AQU Conference, Universitat de Lleida, 23 d'octubre de 2007



AQU Conference, Universitat de Lleida, 23 d'octubre de 2007

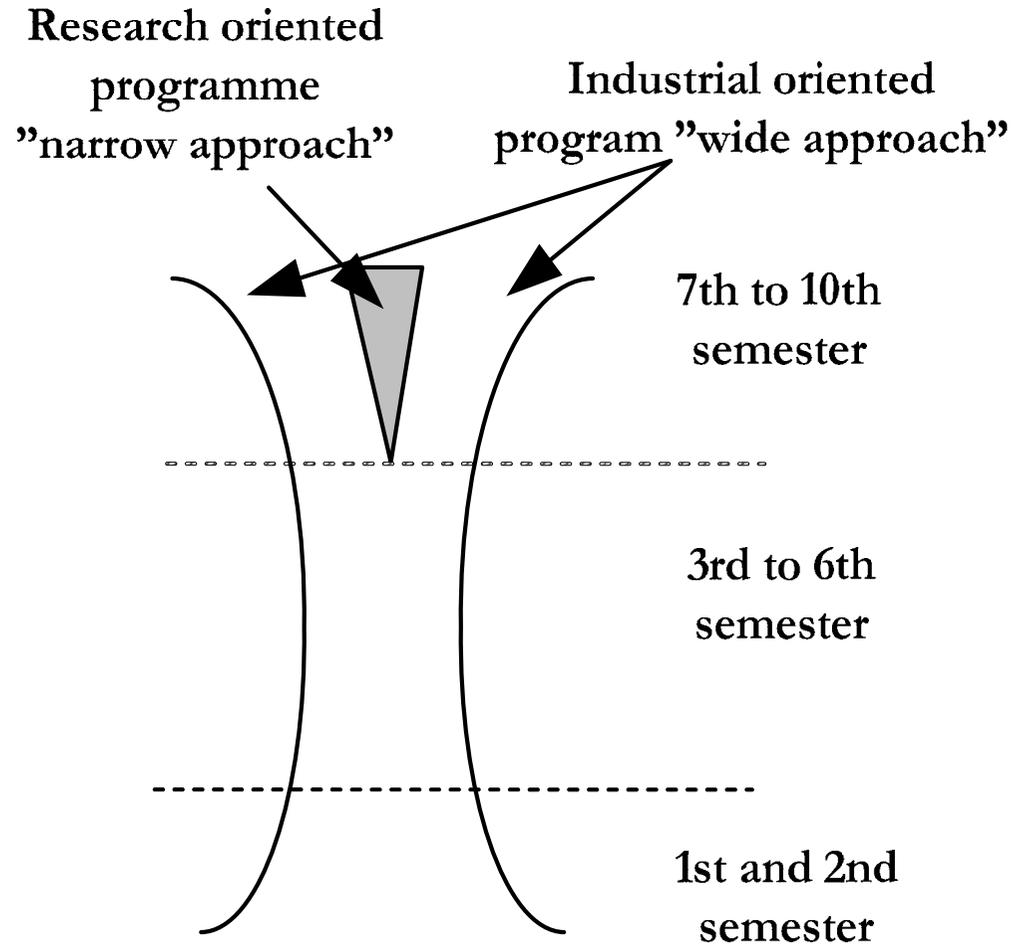




AQU Conference, Universitat de Lleida, 23 d'octubre de 2007

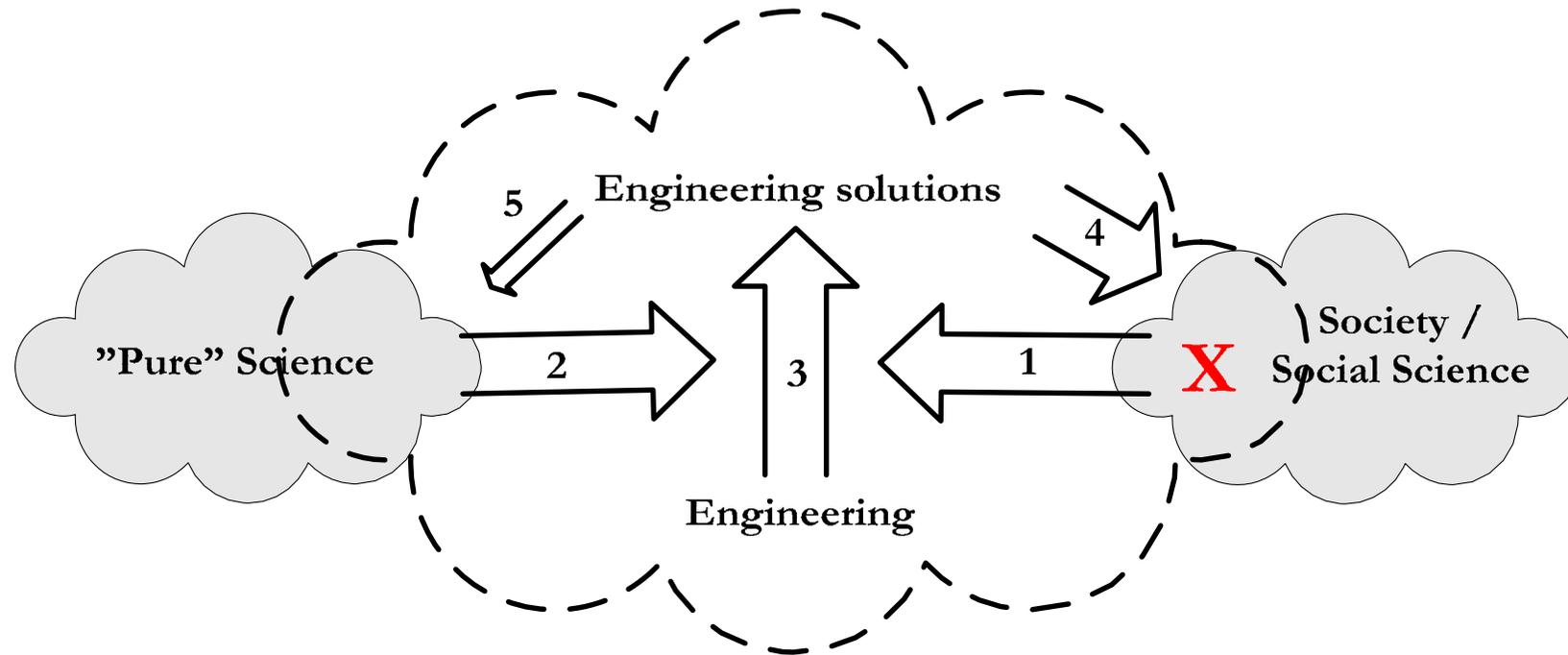
# ***Learning outcomes – additional to the technical content***

AQU Conference, Universitat de Lleida, 23 d'octubre de 2007

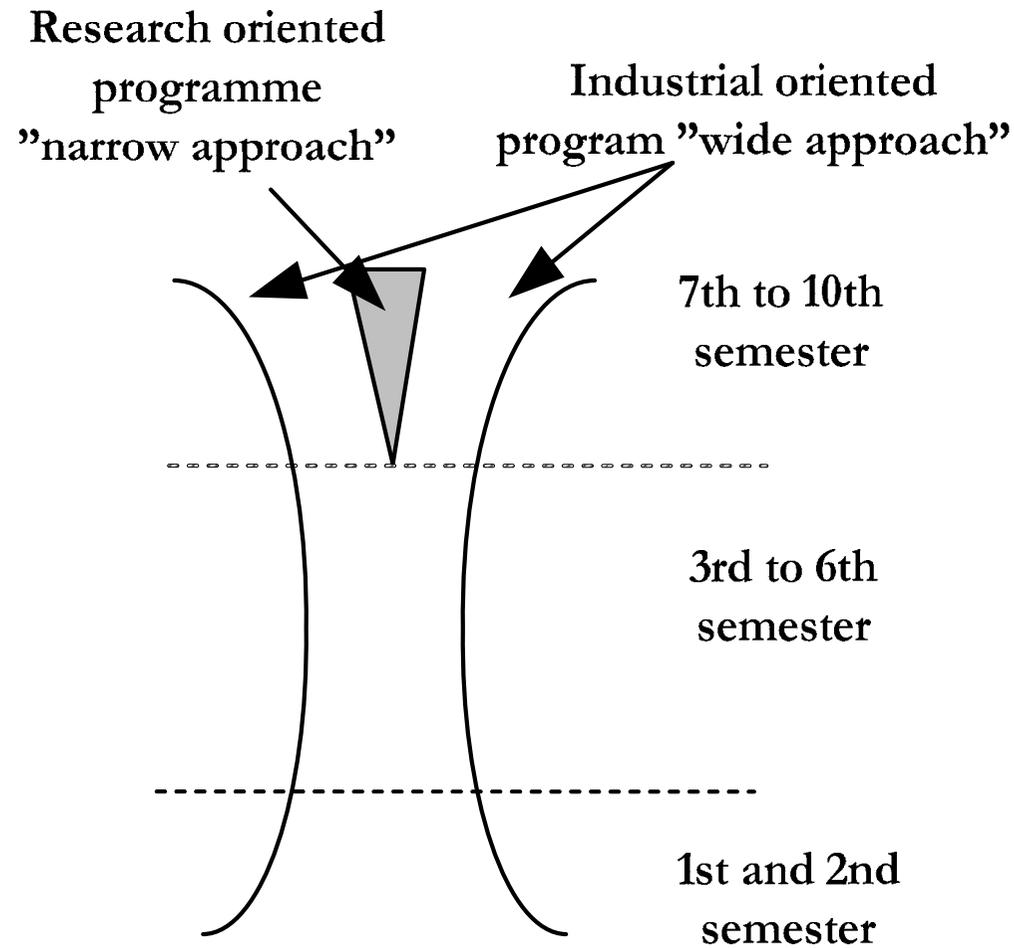


The modified hourglass model.

# A Holistic Approach



AQU Conference, Universitat de Lleida, 23 d'octubre de 2007



The modified hourglass model.



## From a Vision brain-storm session, some of the outputs of personal skills has been:

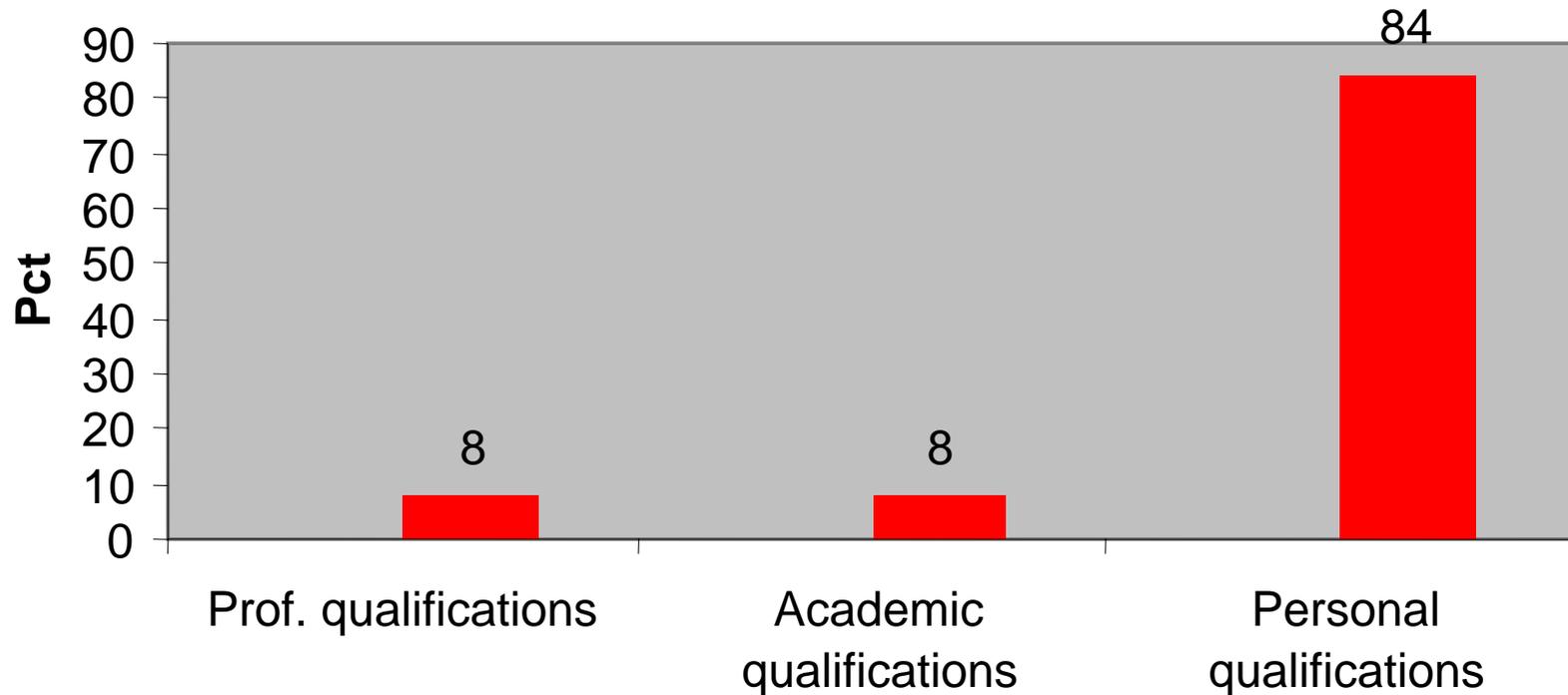
- **Abilities of “learning to learn”**
- **Collaboration skills**
- **Perception of context**
- **Academic behaviors**
- **Conflict solving capabilities**
- **etc... you may have many more!**

- **Why are they important?**
- **And which semester they be addressed?**



Source: Candidate and Employer research, AUC/RUC 2002

## Which qualifications are focused *DURING* the interview



AQU Conference, Universitat de Lleida, 23 d'octubre de 2007

Source: Candidate and Employer research, AUC/RUC 2002

## Training of “Learning to Learn”

1	2	3	4	5	6	7	8	9

### Semesters

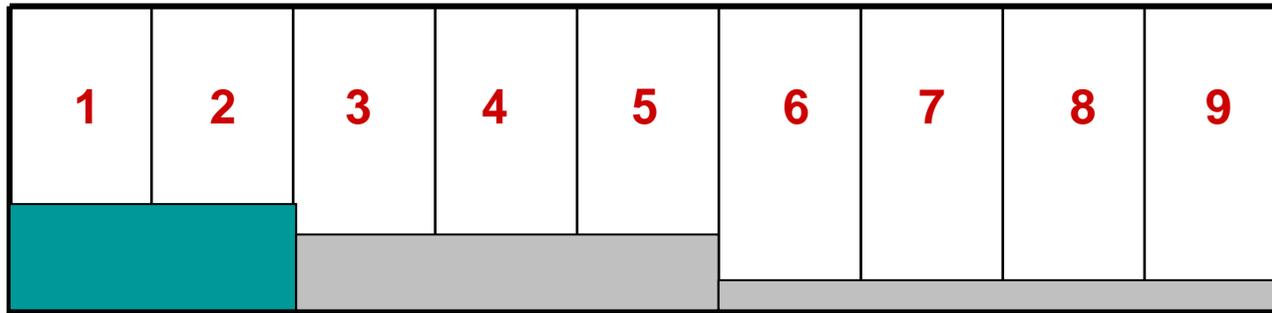


**Training** by e.g. courses



**Focusing** e.g. in project work or in reflection documents

## Training on Collaboration Skills



### Semesters

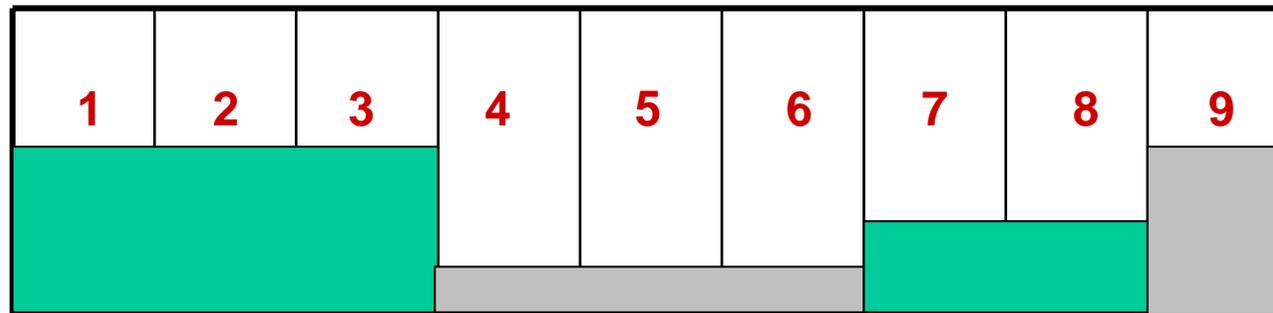


**Training** by e.g. courses



**Focusing** e.g. in project work or in reflection documents

## Training on Perception of Context



### Semesters

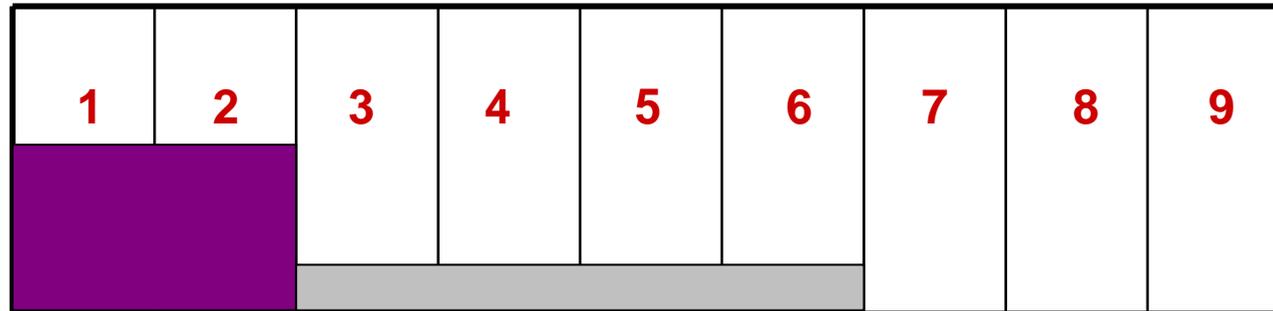


**Training** by e.g. courses



**Focusing** e.g. in project work or in reflection documents

## Training on Conflict Solving Capabilities



### Semesters

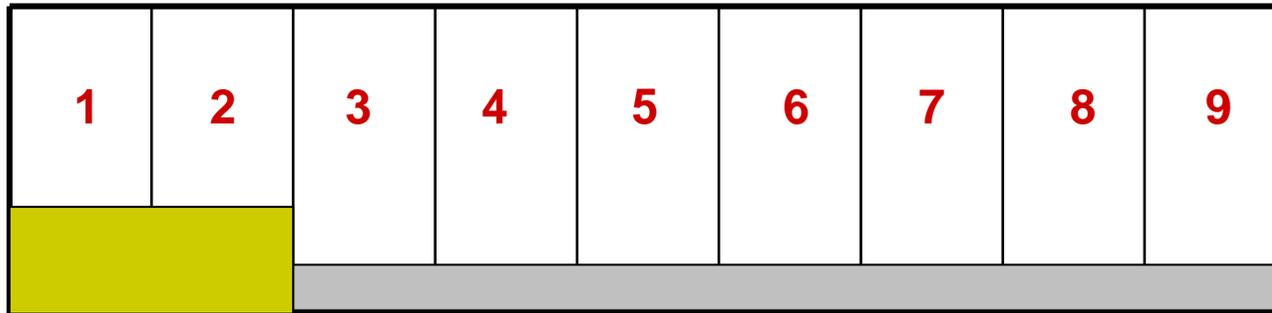


**Training** by e.g. courses



**Focusing** e.g. in project work or in reflection documents

## Training on Academic Behaviors



### Semesters



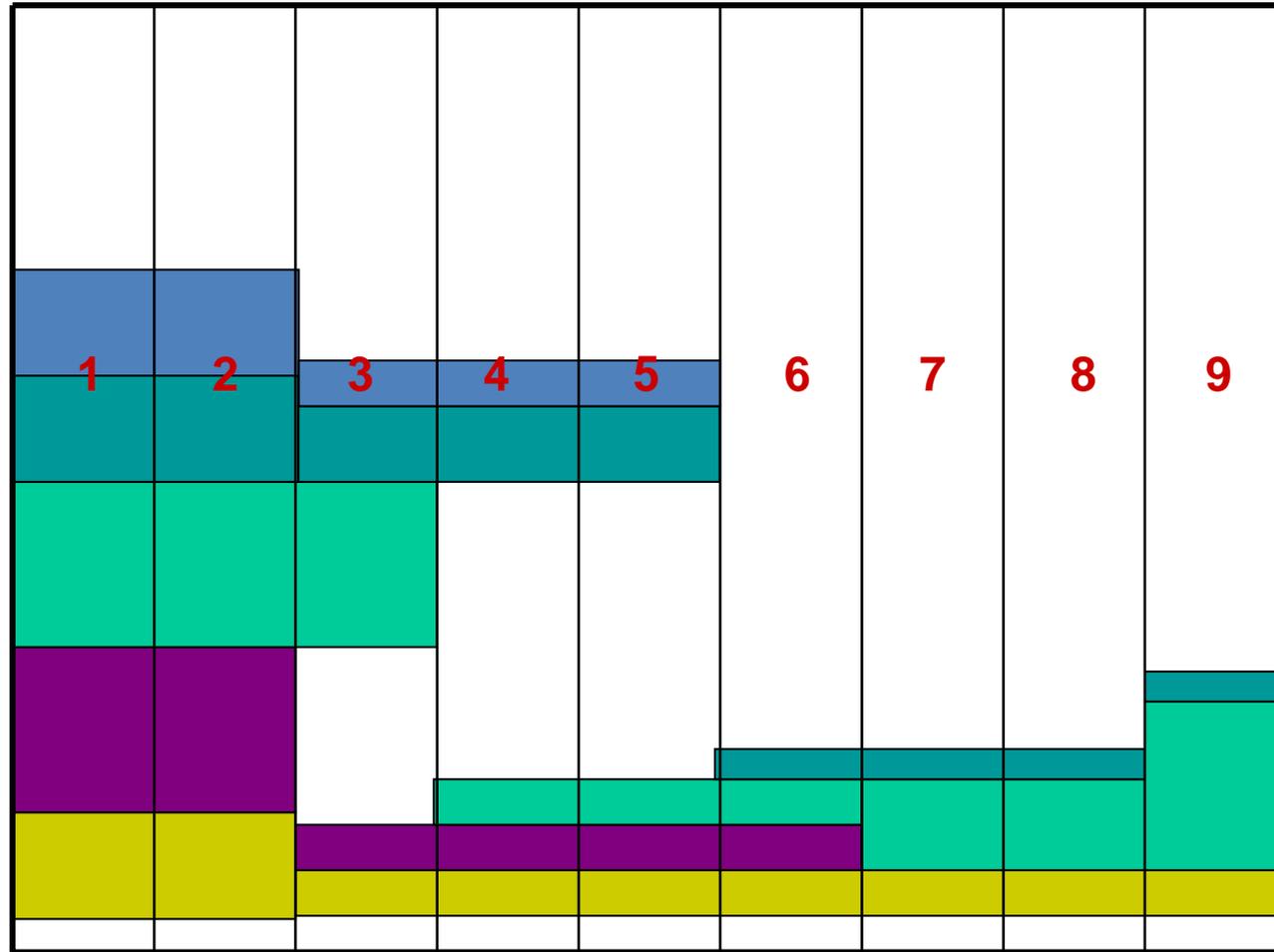
**Training** by e.g. courses



**Focusing** e.g. in project work or in reflection documents

## A summary without sorting

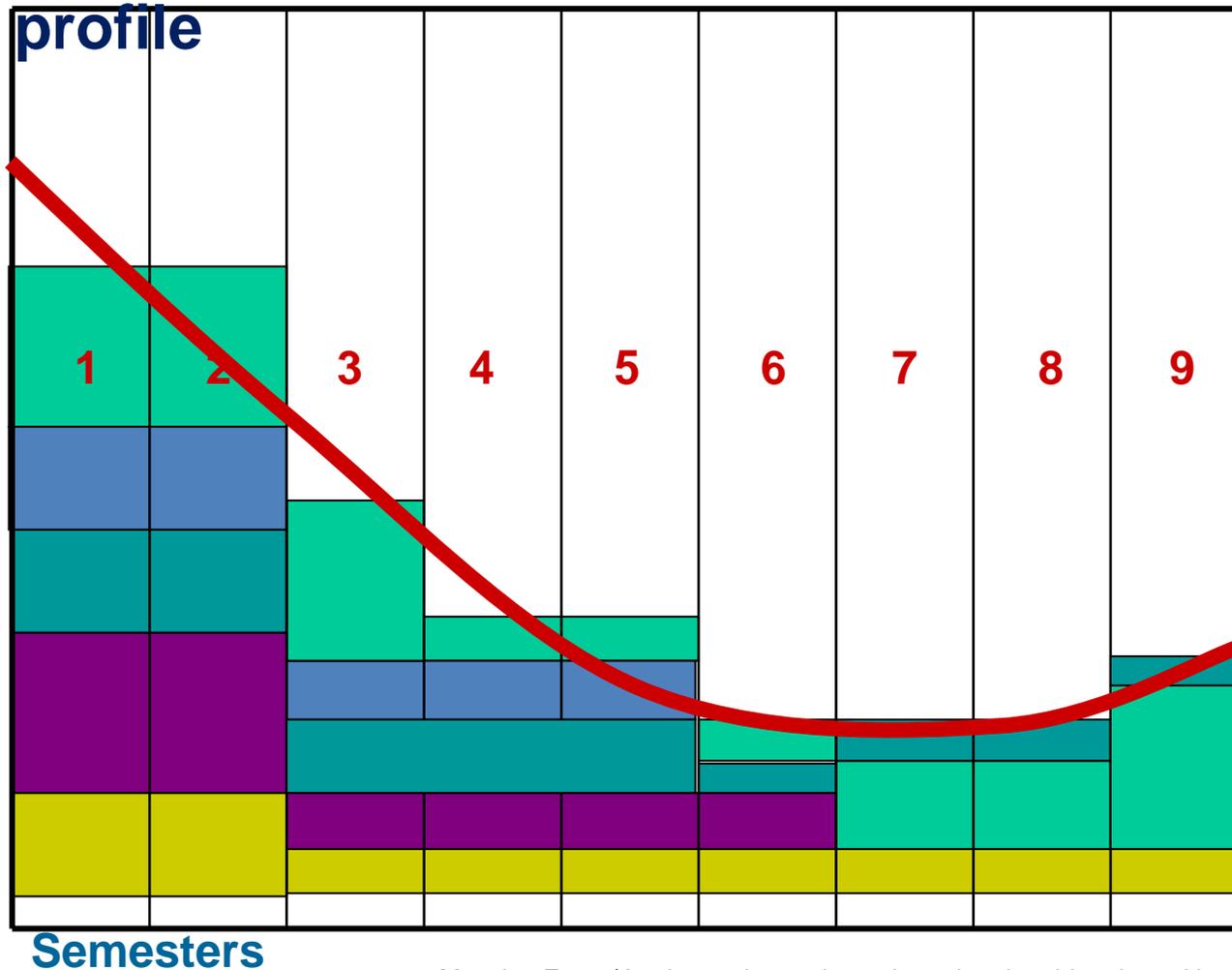
AQU Conference, Universitat de Lleida, 23 d'octubre de 2007



**Semesters**

Moesby, Egon / Implementing project oriented and problem-based learning - POPBL - in institutions or sub-institutions. I: World Transactions on Engineering and Technology, Education. 2006 ; årg. 5, nr. 1, s. 45-52,

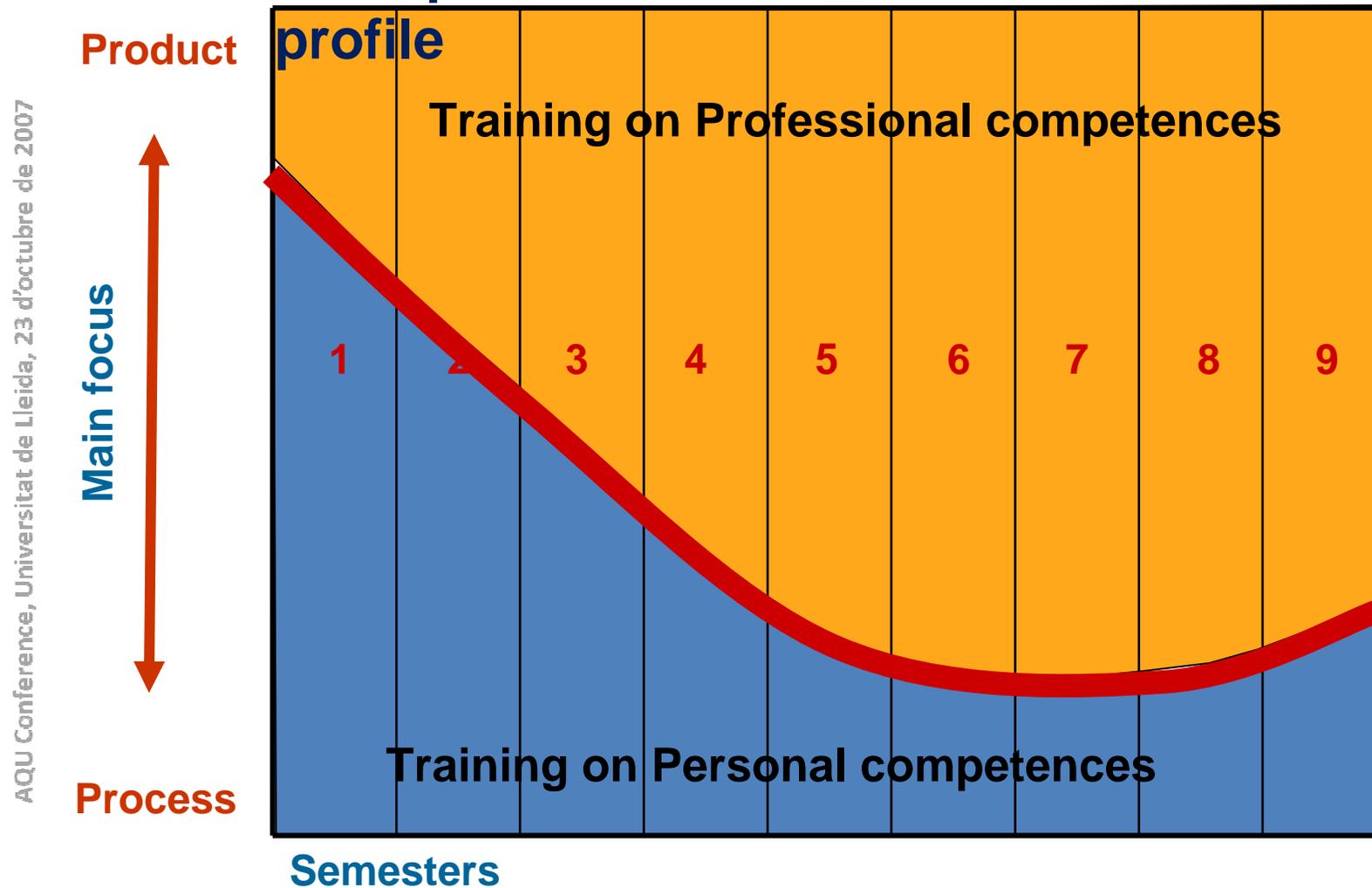
## “Non professional skills”



AQU Conference, Universitat de Lleida, 23 d'octubre de 2007

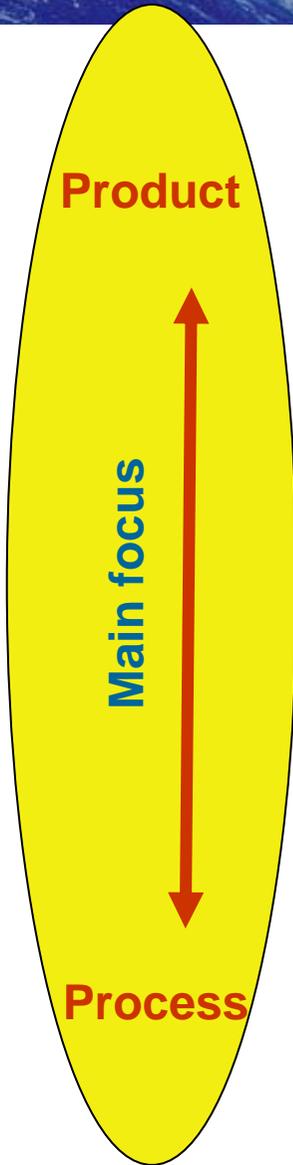
Moesby, Egon / Implementing project oriented and problem-based learning - POPBL - in institutions or sub-institutions. I: World Transactions on Engineering and Technology Education. 2006 ; årg. 5, nr. 1, s. 45-52,

## “Non professional skills”

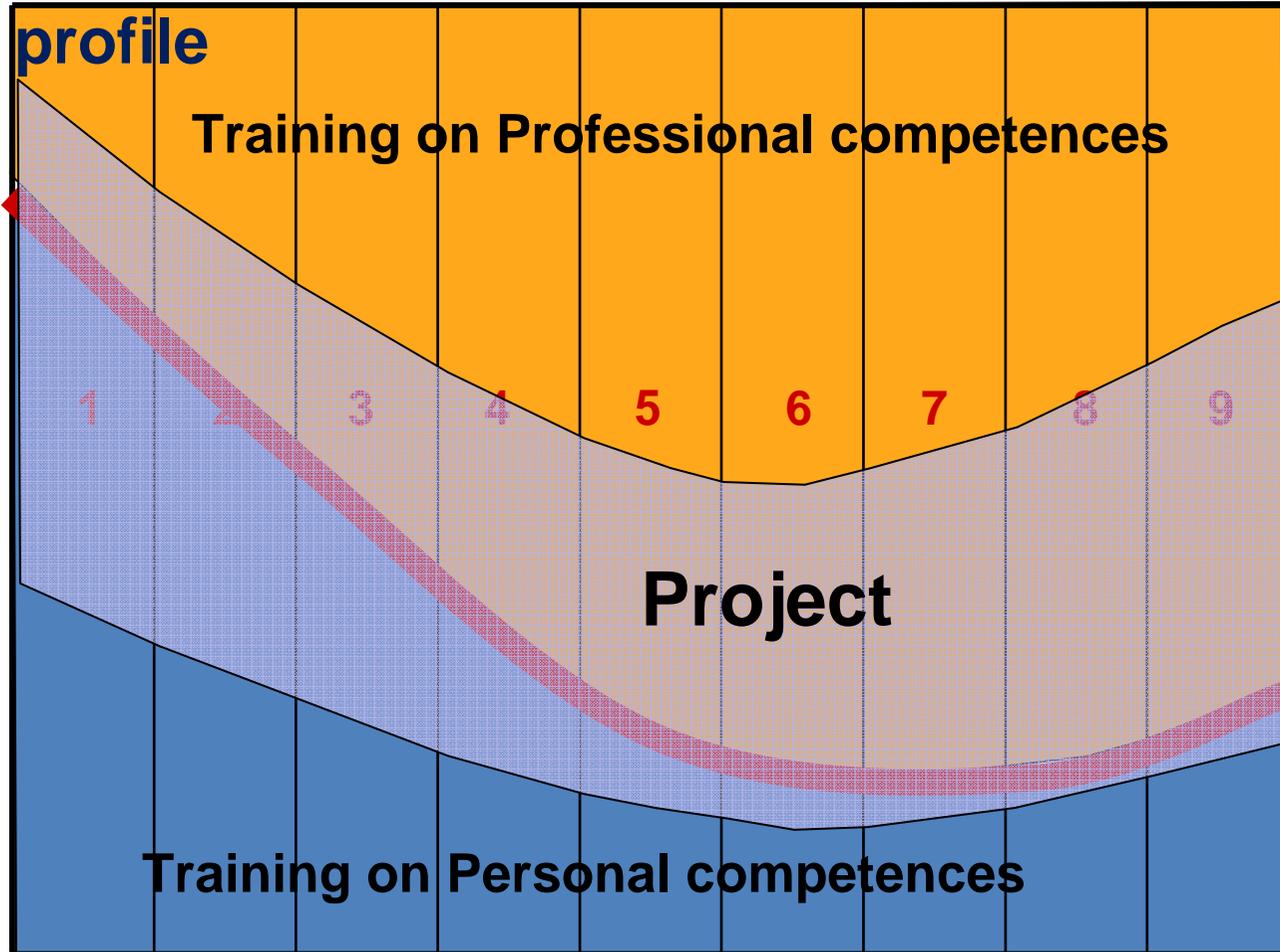


Moesby, Egon / Implementing project oriented and problem-based learning - POPBL - in institutions or sub-institutions. I: World Transactions on Engineering and Technology, Education. 2006 ; årg. 5, nr. 1, s. 45-52,

AQU Conference, Universitat de Lleida, 23 d'octubre de 2007



## “Non professional skills”



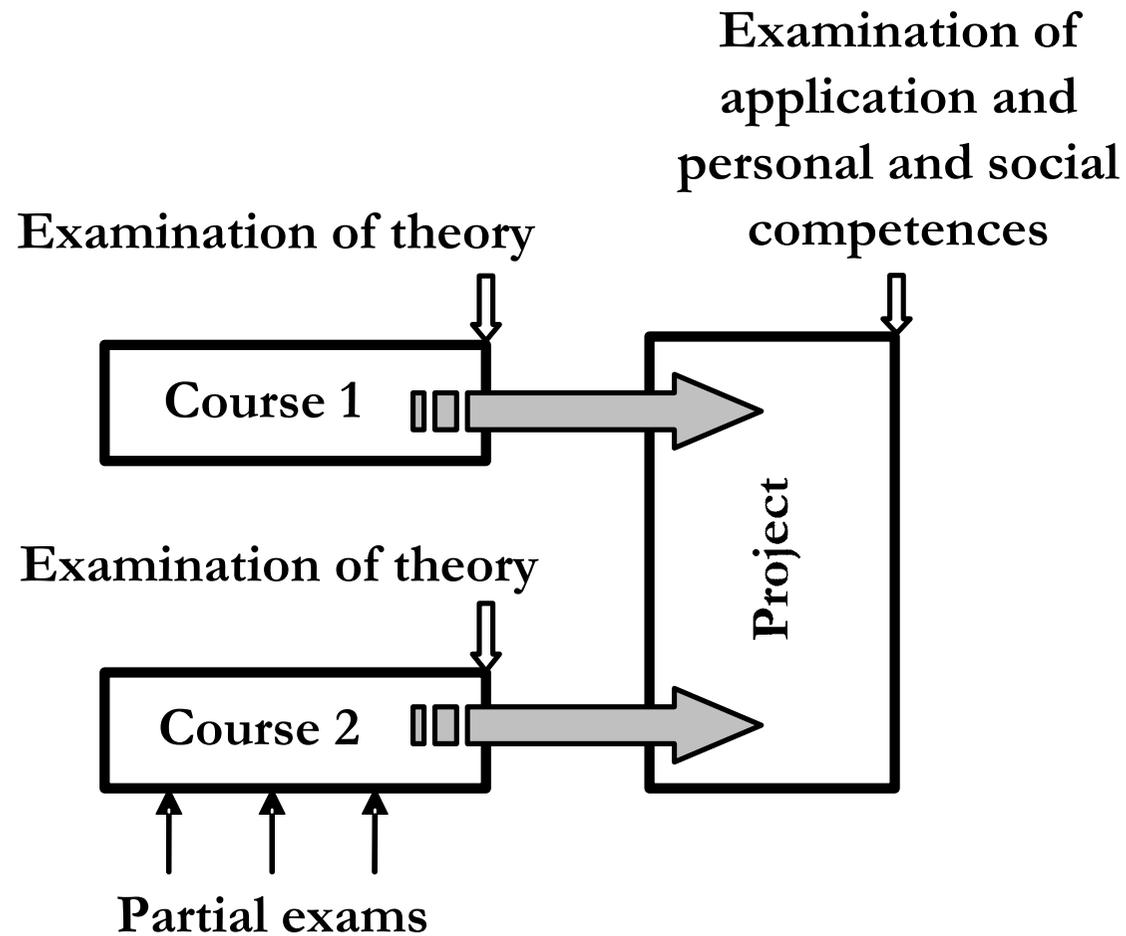
**Semesters**

Moesby, Egon / Implementing project oriented and problem-based learning - POPBL - in institutions or sub-institutions. I: World Transactions on Engineering and Technology, Education. 2006 ; årg. 5, nr. 1, s. 45-52,

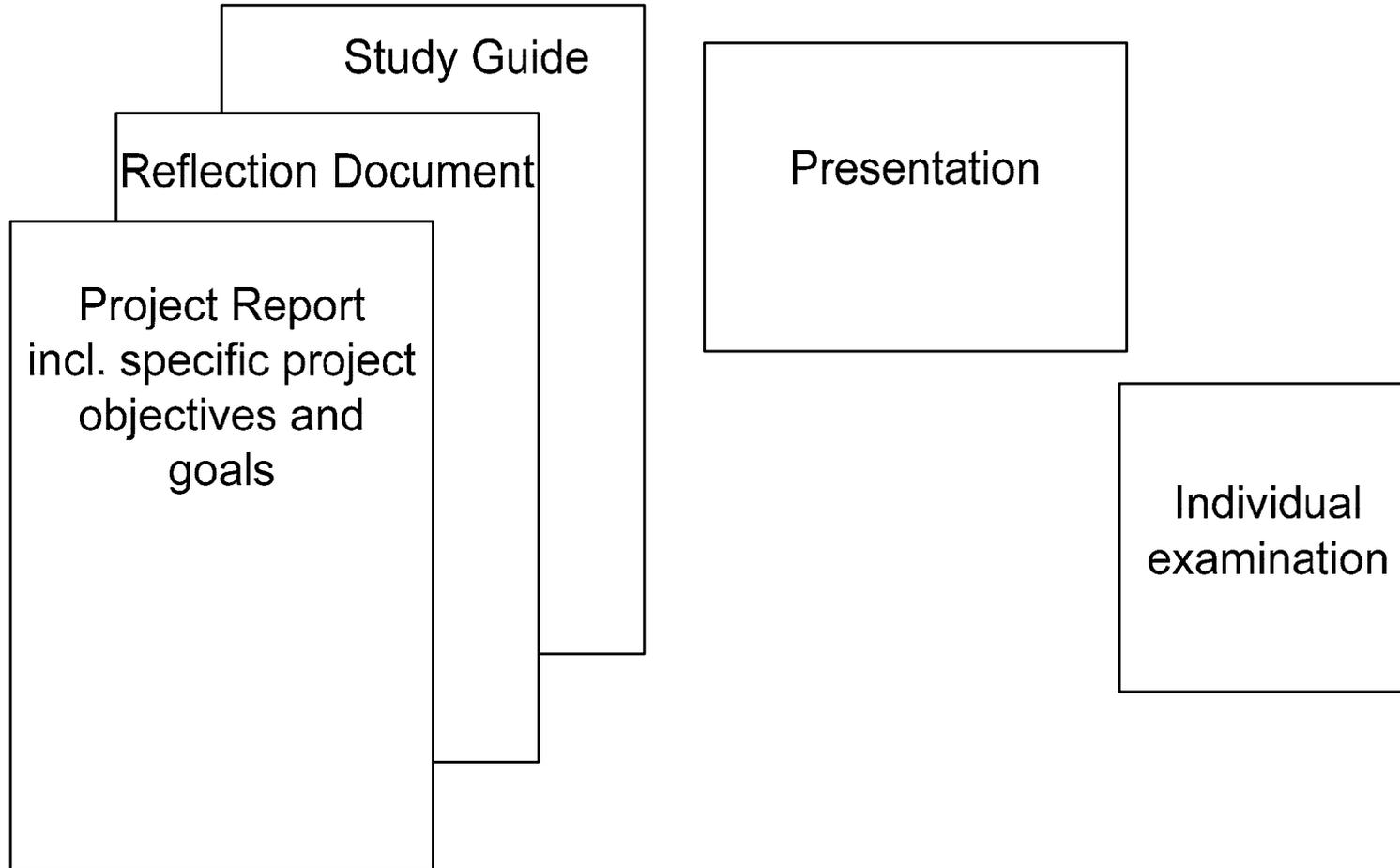


AQU Conference, Universitat de Lleida, 23 d'octubre de 2007

## 3. Assessment of learning outcomes



AQU Conference, Universitat de Lleida, 23 d'octubre de 2007

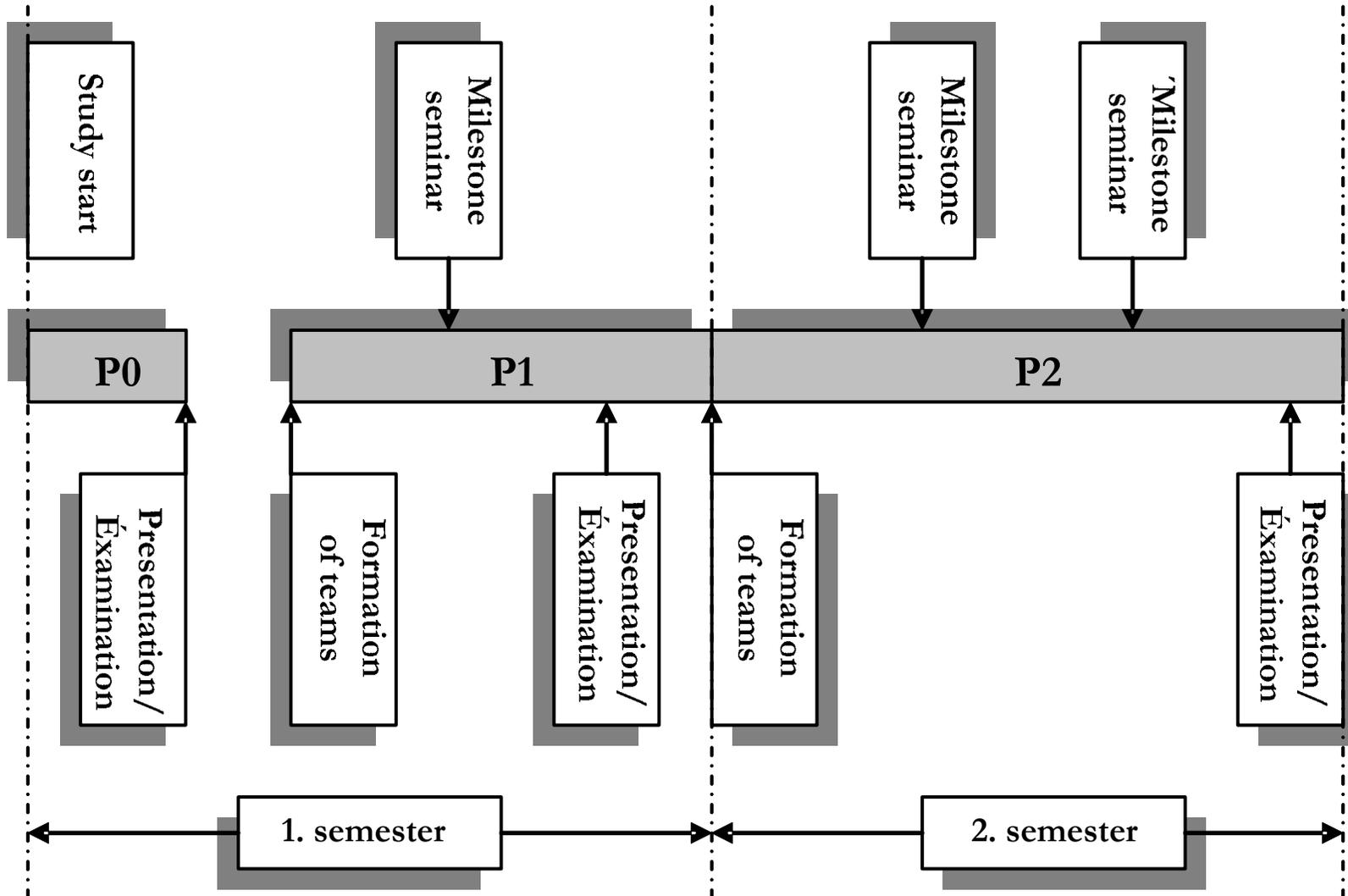




AQU Conference, Universitat de Lleida, 23 d'octubre de 2007

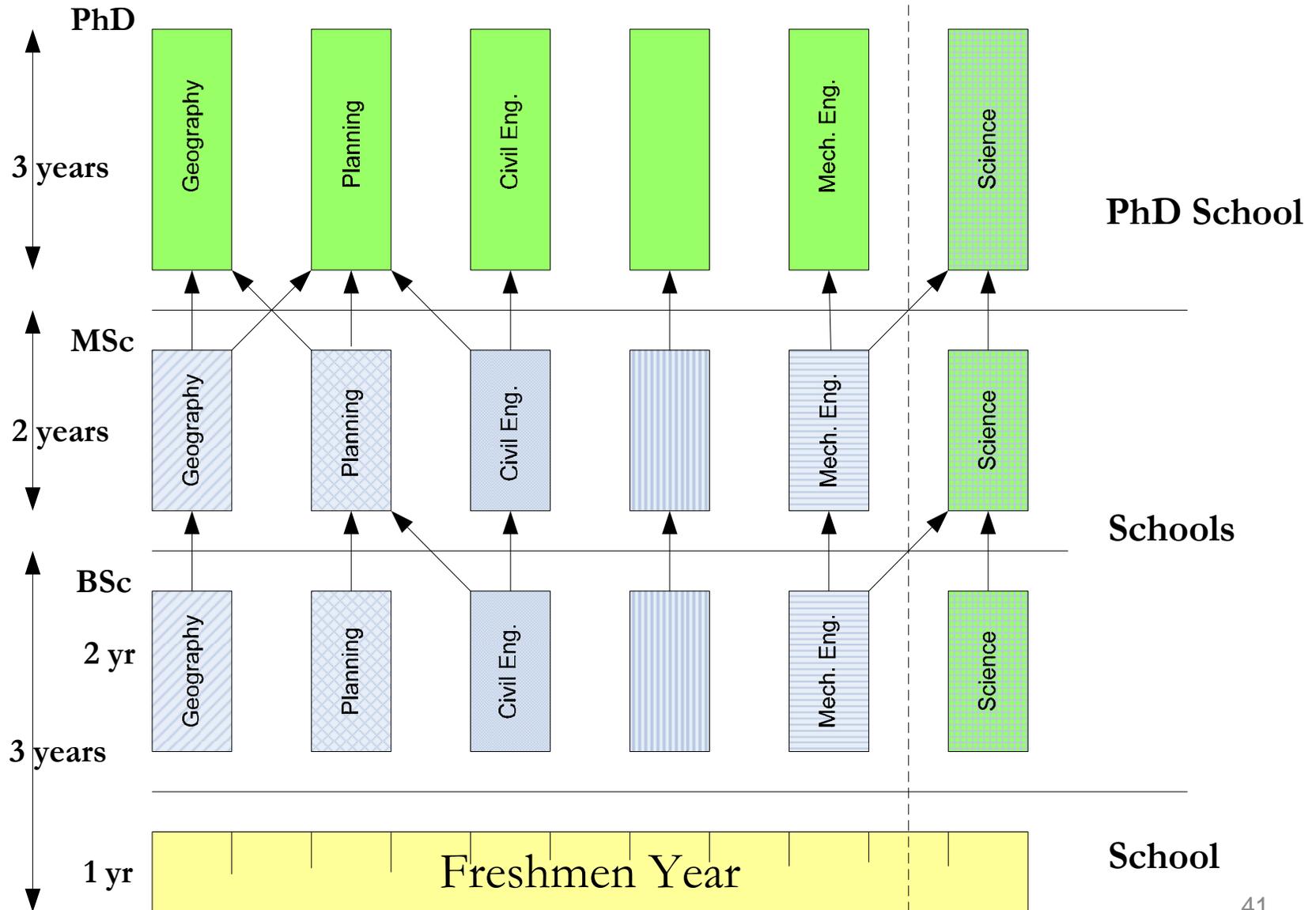
## **4. What, when and how - on students learning opportunity**

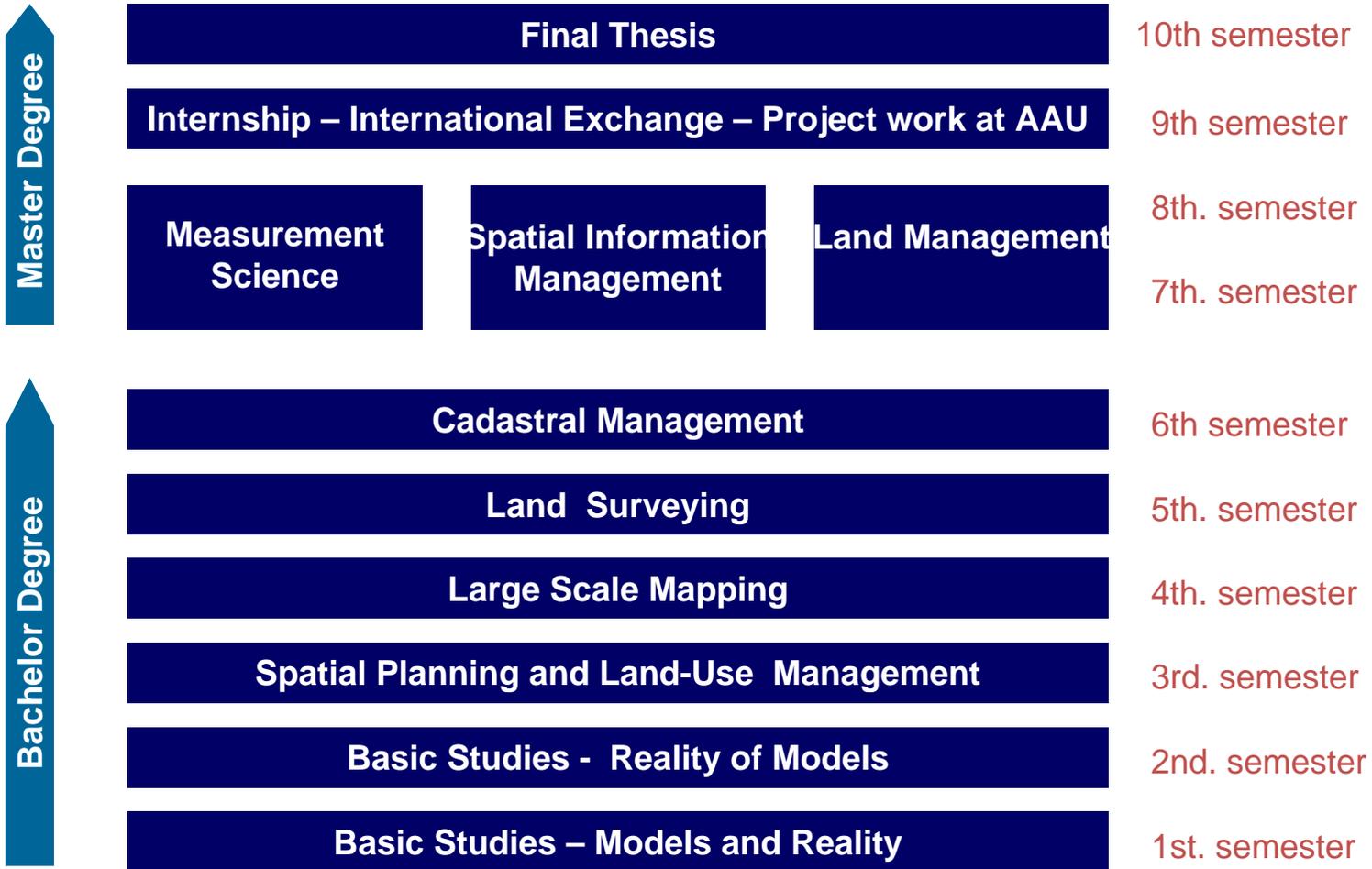
AQU Conference, Universitat de Lleida, 23 d'octubre de 2007



Moesby, E. From Pupil to Student - a Challenge for Universities: an Example of a PBL Study Programme. © UICEE Global J. of Engng. Educ., Vol.6, No.2, 2002. Published in Australia

AQU Conference, Universitat de Lleida, 23 d'octubre de 2007





## New Curriculum in Surveying - 2004



## Minimum requirements for subject descriptions:

- 1.Scope
- 2.Competences required after tending the subject
- 3.Description of WHY the subject is needed and how it fits in the overall plan
- 4.Aims or goals (in measurable terms)
- 5.Means (how the subject is delivered)
- 6.Number of ECTS
- 7.Pre-requirements
- 8.At which semester the subject is delivered
- 9.Type of examination and its conducted

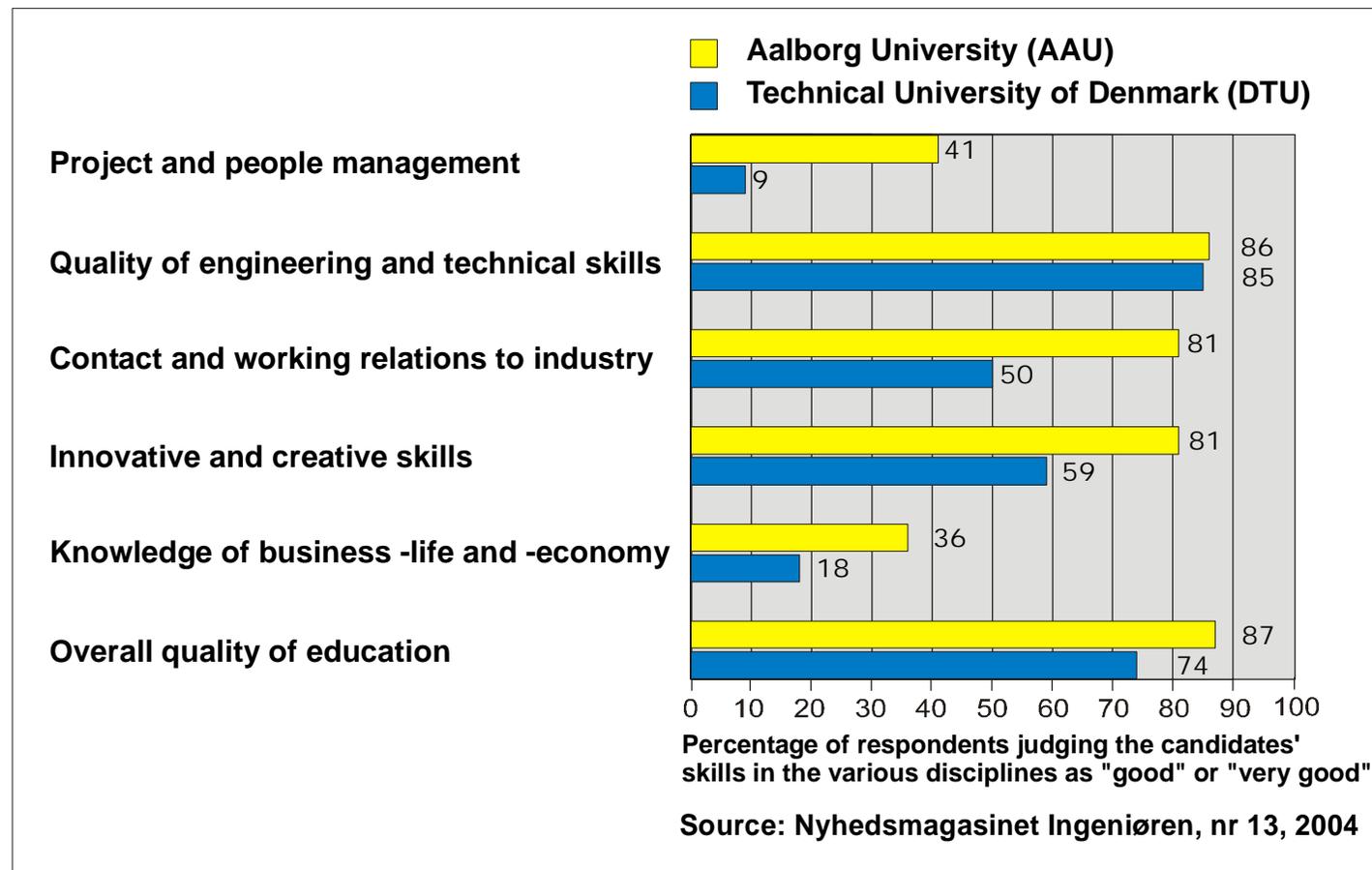


AQU Conference, Universitat de Lleida, 23 d'octubre de 2007

## 5. Results and experiences of the PBL approach

## Survey on how HR persons evaluate alumni from two Universities

AQU Conference, Universitat de Lleida, 23 d'octubre de 2007



AQU Conference, Universitat de Lleida, 23 d'octubre de 2007



# Questions

HEM@AAUE.DK