# DEEM project: Participatory & innovative teaching methods

# July 2017 Mekong area





#### **Outline**

- What do we mean by competence?
- Competence-oriented teaching/learning
- Competence-oriented teaching/learning: WUR example
- Participatory & innovative teaching methods
- ICT and Education
- Conclusion: Plenary discussion



#### Competence 1.0 – for closed activities

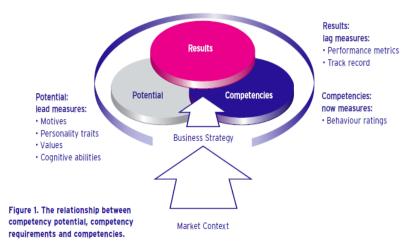
# Detailed listings of behaviors, e.g.:

- Teaching behavior
- Keep attention of students
  - Walk up and down the classroom
- Keep oversight over the group
  - Stand in the corner of the classroom



#### Competence 2.0 – for known jobs

- Jobs
- Responsibilities
- Core tasks
- Work processes
- Activities



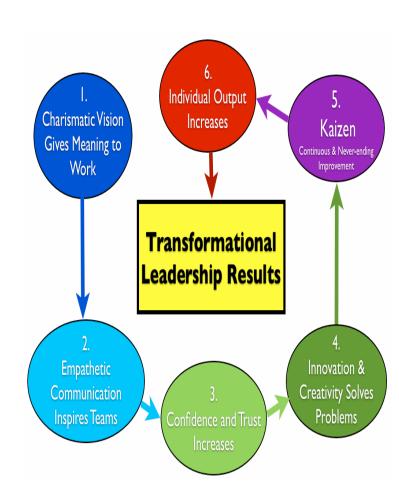
#### The Great Eight

- Leading and Deciding
- Supporting and co-operating
- Interacting and Presenting
- Analysing and Interpreting
- Creating and Conceptualising
- Organising and Executing
- Adapting and Coping
- Enterprising and Performing



#### Competence 3.0 – for unknown future

- Ambiguity handling
- Argumentational reasoning
- Critical thinking
- Complex problem-solving
- Communication
- Resilience
- Creativity
- Entrepreneurship



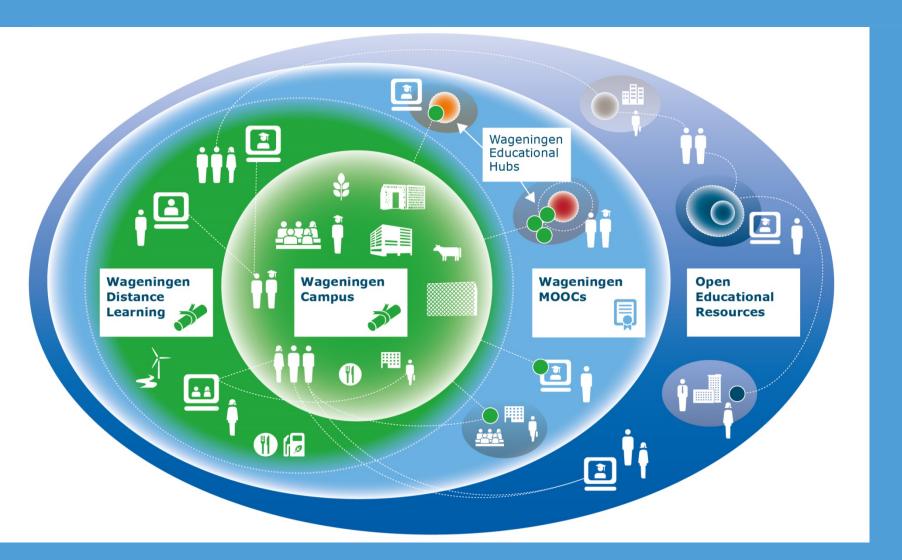


### Competence-oriented teaching/learning

- Constructive
- Adaptive
- Collaborative
- Argumentative
- Increasingly self-regulated learning
- Attractive
- Challenging



# Example: WUR learning ecosystem











Blackboard

















#### Faculty members' education tasks at WUR

- (Co)Teaching regular courses at the chair group
- Teaching regular courses at graduate schools in NL
- Creating new courses in own research field worldwide
- Organizing educational workshops
- Colleague evaluations
- Visiting colleagues' courses
- Contributing to new educational innovations



#### Participatory & innovative teaching methods

- Apply constructive learning theories
- Be a facilitator, mentor, guide
- Use group work & discussions
- Cooperative or collaborative?
- Assign and rotate roles
- Asking questions
- Rules (sticking to the time, mobile devices, support claims, clear/loud voice, no interuptions, drinking & eating, tags)
- Fieldtrip
- Video clips



#### Participatory & innovative teaching methods

- Use ICT and online learning environments (Edmodo, moodle?)
- Use peer feedback
- Use energizer
- Use brainstorming
- Use world cafe
- Use social networking sities
- Encourage argumentation and reasoning
- Voting system (clickers)
- Use problem-based learning



# **Problem-based learning**

How can I get my students to...

#### **Think**



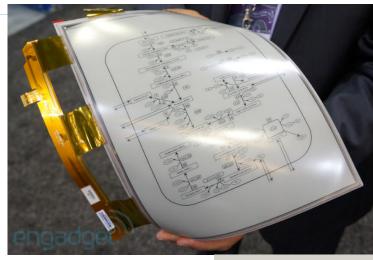


#### Problem-based learning process

- Problem defined
- Information shared
- Think tank
- Evaluation
- Select best solutions

#### ICT and Education - Michael Poh

- Virtual Reality (VR)
- Augmented Reality (AR)
- Flexible Displays
- Multi-Touch LCD Screens
- Biometrics: Eye Tracking
- Online Social Networking

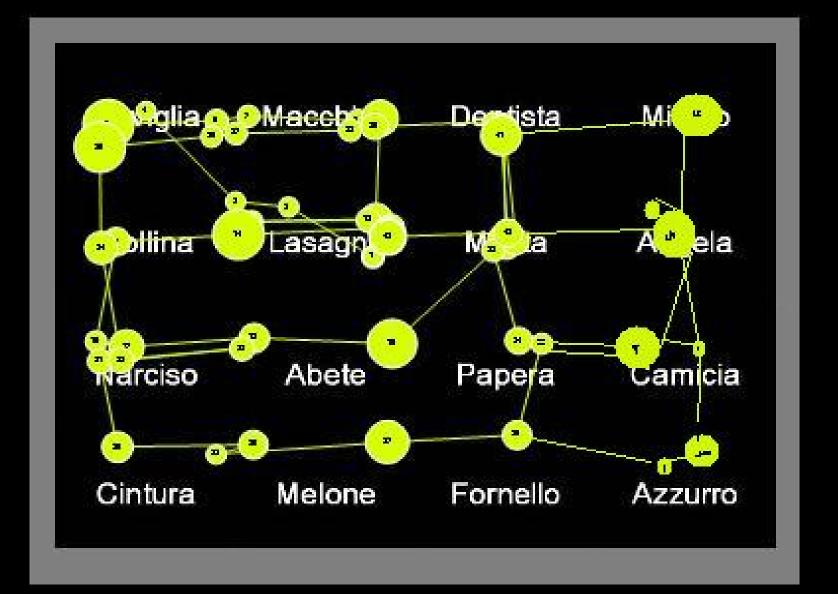


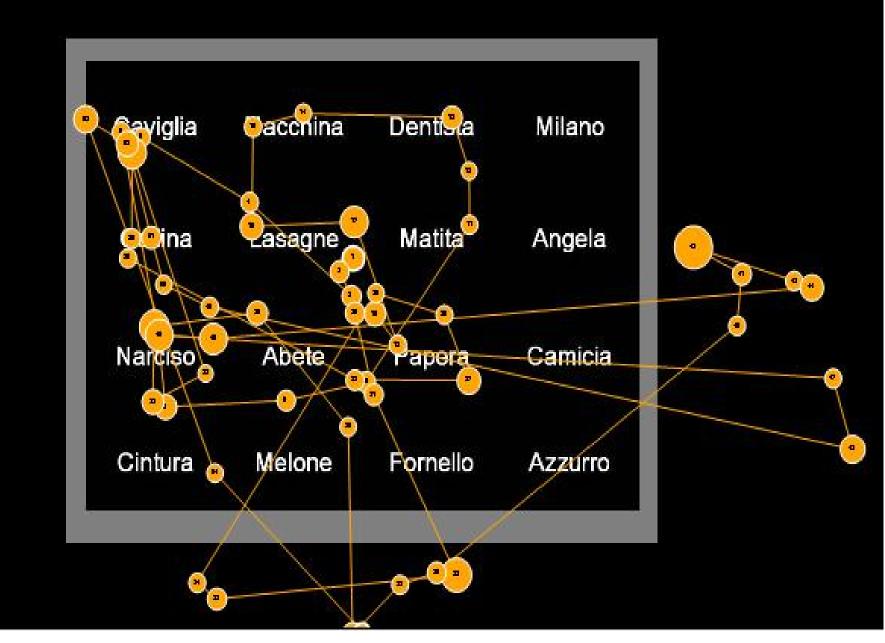
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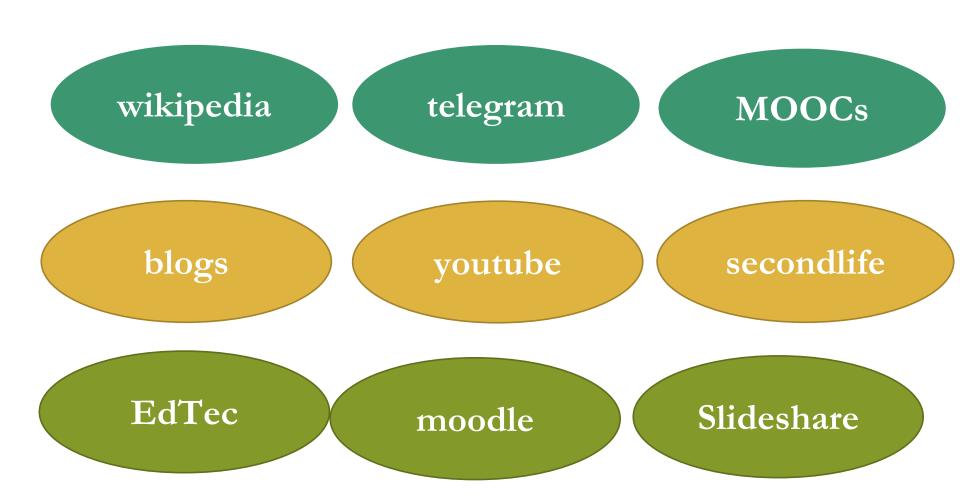






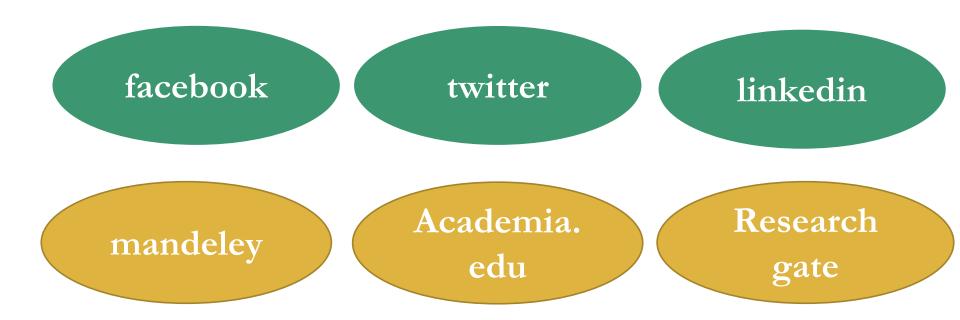


#### Online social networking



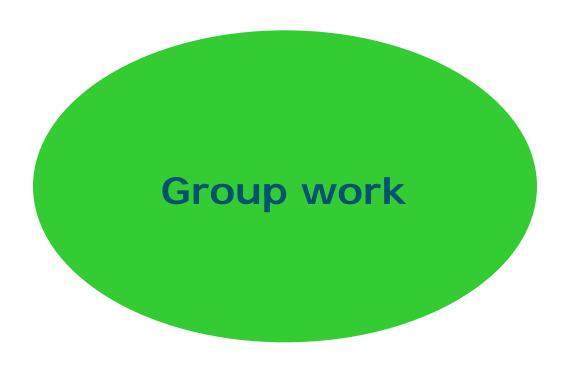


#### Social networking sites





# Participatory & innovative teaching methods

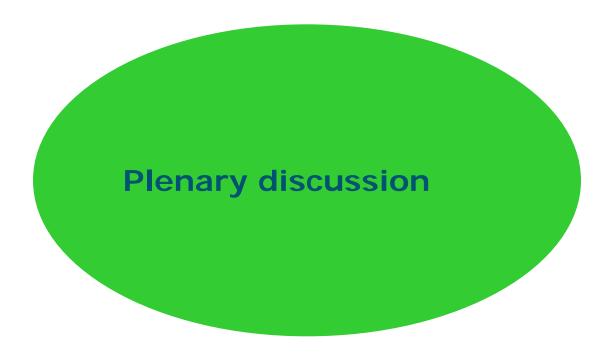




#### **General Question**

- Make an inventory of different innovative and participatory teaching methods for your own course and discuss that with your groupmates!
- Current situation (for 1 course)
- Teaching methods you would like to use/implement

# Participatory & innovative teaching methods





#### **Conclusions**

- Graduates need to learn do deal with the VUCA world: Vulnerable, Uncertain, Complex, Ambiguous
- Future-oriented Competence 3.0 needed
- Ajustments needed in education
- New learning ecosystems needed
- New educational technologies needed

#### Thanks for your attention

Environmental policy (ENP)



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