Workshop ‘Scalable Feedback and Assessment Activities in Open Online Education’

Open University of the Netherlands
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Open University of the Netherlands (7 bachelor & 9 master programs):
- Humanities and Law
- Management, Science, and Technology
- Psychology and Educational Sciences
- 17,000 students (part-time; age 20-80)

The Welten Institute offers a:
- **Master of Educational Sciences**
- **Research Program**: "Learning and teaching in technology enhanced learning environments"
- 55 Staff members; 20 Internal & 80 external PhD students

February, 24th 2016 eMOOCs Graz
SOONER focuses on fundamental research about open online education (OOE) in the Netherlands. It includes four PhD-projects:

- **Macro**: structural and organizational embedding of OOE.
- **Meso**: Scalable support solutions
- **Micro**: Self-regulated learning skills
- **Micro**: Motivation and intentions vs drop-out
Some challenges of scaling up learning activities to high student numbers:

- **Scale**: high student numbers need to receive feedback and support
- **Quality**: providing meaningful learning activities including assessment & feedback
- **Cost**: limited teacher bandwidth

Lane, 2014
Introduction…

• Where are you working and in which function?
• What is your research background?
• Why are you interested in this workshop?
• Which experience do you have with scale in education?
Workshop program

1. Our view of educational scalability
2. The link between task complexity, interaction richness and scale
3. Brainstorm round 1
4. Reflecting on round1 & start round 2
5. Closing up
“Instructional interaction is an event that takes place between a learner and the learner's environment. Its purpose is to respond to the learner in a way intended to change his or her behavior toward and educational goal. Instructional interactions have two purposes: to change learners and to move them toward achieving their goals.” (Wagner 1994)

Anderson, 2013
Task complexity

Miller’s Pyramid

- **DOES**
  - Performance assessment in real life
  - Observation/In-Training Assessments

- **SHOWS HOW**
  - Clinical competence in simulated situations
  - OSCEs, simulations

- **KNOWS HOW**
  - Context-based tests
  - MCQ, essay type, oral

- **KNOWS**
  - Factual knowledge test
  - MCQ, short answer, oral
Educational scalability...

- is the sensitivity of a learning environment towards the numbers of learners participating. It ensures educational quality and is neutral towards teacher bandwidth.
Brainstorm round 1
Brainstorm round 1

The question:

• Which feedback and assessment activities are known and/or scalable applied in MOOCs? (Best practice)
Brainstorm round 1

“A good example of a learning activity in a MOOC that I know of (desire) and that is of high quality, engages students and does not confront the teacher with a high workload can be described as follows:

• Goal type (Miller)
• Context
• Description of the learning activity
• Description of the assessment and feedback”
1. **Goal of the learning activity (choose one option)**

-> choose one of the following complexity levels of Miller’s Pyramid

- **Knows:** closed MCQ factual knowledge
- **Knows how:** essay
- **Shows how:** simulation task
- **Does:** showing skills in real life situation
Template example – round 1

2. Short introduction of the context in which the learning activity will take place

The learning activity takes place within a Problem-Based Learning (PBL) setting. This implies that they have to work in small groups to solve open ended problems.
3. Short description of the learning activity (define the role of student(s) & teacher & content)

The students start with looking at a video and reading a text about the role of the teacher in PBL. Next, they have to prepare a short essay about the role of the teacher in a PBL-setting of their choice. Students have to read peers work and provide written feedback. The feedback will be shared in the virtual classroom of the learning environment which is accessible for every student and the teacher.
Template example – round 1

4. Short description of the assessment and/or feedback method (define the role of student(s) & teacher & content)

The students read the work of their peers and use rubrics to provide their peers with feedback.
Sharing and sorting ideas – round 1
## Interaction richness and task complexity

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February, 24th 2016 eMOOCs Graz
Discussion round 1
### Interaction richness and task complexity

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### Scale and task complexity

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- Interaction richness: Low, Medium, High
- Scale: 1 to 9
- Task complexity: Easy, Medium, Hard
Brainstorm round 2
Brainstorm round 2

Continue with your shared idea and try to further elaborate based on the given suggestions (or make a new one).

How could you improve the scalability?
Scalable Support: Student – Student

“If three of us are walking together, at least one of the other two is good enough to be my teacher” (Confucius):

- Question – Answering (Van Rosmalen et al., 2008)
- Tuned models of Peer Assessment (Piech, Huang, Chen, 2013)
- Team formation for Collaborative Learning (Spoelstra et al., 2015)
Scalable Support: Student – Content
Personalized Formative assessment / feedback tools

Mobile Serious Games (Culture)

Learning Analytics (Reflection)

Text analysis (Open Assignment)

Shared concepts
Try to further elaborate your learning activity by improving one or more of the following scalability aspects: (1) scale, (2) task complexity, (3) interaction richness.

The interaction richness within the learning activity can be improved by optimizing the peer feedback procedure: a program could be used to group students based on their profile and their knowledge. The hypothesis is that the quality of the peer feedback is improved by grouping student of a similar discipline and experience.
Sharing and sorting ideas – round 2

Share your ideas!
Interaction richness and task complexity

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Discussion round 2