Students’ peer-feedback perceptions in MOOCs

Julia Kasch, Peter van Rosmalen, Ansje Löhr, Ad Ragas, Marco Kalz

5 – 6 oktober 2017, Barcelona
Students’ peer-feedback perceptions in MOOCs

- SOONER research project
- Educational scalability
- Pilot study & first results

Discussion
• SOONER is a 5 year Dutch research project focusing on the development & use of open online education (OOE) in the Netherlands:
Scalability. The Challenge.

Higher education:

• **World wide**: “414.2 million students will be enrolled in higher education around the world by 2030 – an increase from 99.4 million in 2000 and that online, open and flexible education is going mainstream” (ICDE, 2015)

• **The Netherlands**:  
  – 79% of university staff reports a workload of high to very high (FNV, 2017)  
  – Since 2000 increase of students vs staff: 60% - 14% (Ministry of Education)  
  – VNSU (Sept, 2017): experiment with, share and learn of online in HE.
Educational Scalability

...is the capacity of an educational format to maintain high quality despite increasing or large numbers of learners at a stable level of total costs.
Focus Pilot Study

• Peer-feedback as a learning goal, a skill!

-> How do instructional design elements of peer-feedback training influence student perception of peer-feedback activities in MOOCs?
Pilot Study

Marine Litter MOOC

Pre-questionnaire: 21 items
Post-questionnaire: 17 items
Peer-feedback design recommendations

<table>
<thead>
<tr>
<th>Peer-feedback design recommendations</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clarity: regarding instructions,</td>
<td>Students need clear instructions on what they are expected to do, how and why. If tools such as a rubric are used students should understand how to interpret and use them.</td>
</tr>
<tr>
<td>expectations and tools</td>
<td></td>
</tr>
<tr>
<td>Practice</td>
<td>Students need the opportunity to practice with feedback tools such as a rubric beforehand.</td>
</tr>
<tr>
<td>Exemplars</td>
<td>Exemplars make expectations clear and provide transparency.</td>
</tr>
<tr>
<td>Alignment</td>
<td>Peer-feedback activities should be aligned with the course content to make them valuable for students.</td>
</tr>
<tr>
<td>Sequencing</td>
<td>Guide students through the peer-feedback process by sequence the activities from simple to complex.</td>
</tr>
</tbody>
</table>

Table 1. Provides a short overview of common peer-feedback design recommendations in face-to-face higher education

Peer-feedback training: Expectations

Are you planning on using the DPSIR framework in your final assignment? This peer-feedback activity gives you the opportunity to receive feedback from your peers and improve your work! Participating in this peer-feedback activity is optional and everyone who is using the DPSIR framework can participate.

To receive peer-feedback you will have to upload your DPSIR scheme and its corresponding description below. Then you will be asked to provide feedback to a peer’s DPSIR scheme + description. The focus of the peer-feedback will be on the 'Responses' and the elements the DPSIR focuses on.
If you are working in a group you can also join in the peer review and make a DPSIR with your group. In that case, the group coordinator is responsible for uploading the DPSIR scheme + description in the box and providing feedback.

Those of you who are working individually on the final assignment can upload their DPSIR scheme + description directly below in the box.
Peer-feedback training: Instructions & examples

OBJECTIVE

After this training you will be able to identify and recognize the main Responses (R) and describe the focus on one of the DPSIR elements in a marine litter case. Additionally, you will be able to provide feedback and give recommendations on how to make a DPSIR scheme.

VIDEO ON HOW TO ANALYSE A DPSIR SCHEME

Making a DPSIR scheme about a marine litter problem is not an easy task and having to review one neither. In follow-up activities of this MOOC you will get the chance to design your own DPSIR and to review a DPSIR scheme of a fellow student. But how can you review a DPSIR scheme in an easy and convenient way? In the video below we will show you how to do so based on the ‘Beat the microbeads’ case. If you are not familiar with this case, you find some background information about this case below.
Peer-feedback training: exercises & elaborated feedback

**QUESTION 1** (1/1 point)

Below you see the student's description of the focus of the marine litter case. How would you label the quality level of the student's description?

“The focuses of the case is on recycling discarded flipflops as handcrafted artwork to help the marine ecosystem and sharpen the locals environmentalism”

- Low: The focus of the marine litter case is not (correctly) described
- Average: The focus of the marine litter case is described ✔️
- High: The focus of the marine litter case is described and explained in terms of the DPSIR elements

**EXPLANATION**

The student describes the focus of the case but does not explain it in terms of the DPSIR elements. A correct answer would be: This case is focusing on the responses by setting up a campaign that recycles discarded flip flops. Handcrafted artwork, toys, fashion items etc. are made out of these flip flops and sold all over the world and create a lot of awareness. By recycling the washed up flip flops the beaches in that area are kept clean and there is less plastic in the ocean (‘State’). Sea animals are less exposed to swallowing plastic too (‘Impact’).
### Results

<table>
<thead>
<tr>
<th>Item</th>
<th>No, never</th>
<th>Yes, once</th>
<th>Yes, 2-5 times</th>
<th>Yes, &gt; 5 times</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Q3] Before enrolling in this MOOC, did you ever participate in a peer-feedback/peer-assessment activity in a MOOC?</td>
<td>11</td>
<td>5</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>[Q4] Did you ever participate in a peer-feedback/peer-assessment activity in a regular course?</td>
<td>8</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>[Q6] Peer-feedback training provides you with information and examples/exercises about how and why feedback is given/needed. Did you ever participate in peer-feedback training in a regular course?</td>
<td>13</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>
Post-questionnaire results

• Willingness:
  – In the future I am willing to provide feedback/comments on a peer’s assignment ($M = 2.3$)
  – In the future I am willing to take part in learning activities that explain the peer-feedback process ($M = 2.0 \rightarrow 2.7$)
Results

• Usefulness:
  – I found it useful to participate in a peer-feedback activity ($M = 2.2 \rightarrow 2.7$)
  
  – I found it useful to receive instructions/training on how to provide feedback ($M = 2.1 \rightarrow 2.7$)
  
  – The examples and exercises of the DPSIR peer-feedback training helped me to provide peer-feedback in the MOOC ($M = 2.7$)
Results

• Preparedness:
  – I felt confident to provide feedback/comments on a peer’s assignment ($M=1.9 \rightarrow 2.3$)
  – I felt that the DPSIR peer-feedback training provided enough examples and instruction on how to provide feedback ($M=2.3$)
Results

• General attitude:
  – Students should receive instructions and/or training in how to provide peer-feedback ($M=2.0 \rightarrow 2.3$)
  – Peer-feedback should be part of each MOOC ($M=1.7 \rightarrow 3.0$)
  – Peer-feedback training should be part of each MOOC ($M=1.4 \rightarrow 2.7$)
Upcoming research

• Peer-feedback training:
  • A/B testing
  • Kwalitative analysis on provided peer-feedback
  • Student matching?