Online and blended learning for distance students: examples and lessons learned

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Content

• Introduction
• Online/blended learning at Maastricht University
• Three examples: design & evaluation
• Lessons learned
• Discussion
Who am I?

Background:
instructional science, cognitive science, psychology

Currently:
Programme director MHPE, teacher, researcher & advisor

Field of interest:
instructional design, online/blended learning, Problem-Based Learning
Maastricht University: PBL
Online education in practice?
But we want...

Constructive learning
Contextual learning
Collaborative learning
Self-directed learning
Examples of online/blended learning

- Small scale: synchronous tutor groups
- Medium scale: asynchronous PBL/Project-based course
- Large scale: tutorless PBL MOOC
Example 1: Online PBL

- For full-time and (6-8) part-time students
- Blended with onsite day every 6 weeks
- Module 1:
  - F2F meetings first and last week
  - 4 online meetings of 2 hours
  - 11 videotaped lectures
- Set-up very similar to ‘normal’ PBL
Online PBL Example 1:
Synchronous online tutor groups
Evaluation results

• Students positive (Scale 1-5):

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>The content of the course was interesting</td>
<td>4.3</td>
<td>8</td>
</tr>
<tr>
<td>The problems in the task were relevant</td>
<td>3.8</td>
<td>8</td>
</tr>
<tr>
<td>The literature was interesting</td>
<td>4.1</td>
<td>8</td>
</tr>
<tr>
<td>The quality of the course was good</td>
<td>3.8</td>
<td>8</td>
</tr>
</tbody>
</table>

• Tutor positive: little difference, except additional technical tasks

• Analysis of videotaped sessions: Quality of discussion better (!)
Lessons learned

• Success factors
  - Immediate gain for students (travel time)
  - Knowing each other beforehand
  - Synchronous communication

• Additional requirements:
  - Technology: preparation and support
  - Online communication: rules for interaction
Example 2: Masters of Health Professions Education

- 2-year master, only part-time
- Blended with two contact units (3 weeks)
- 50-60 students per year
- Working health professionals
- Around the globe
MHPE Unit 3: Curriculum Development

• Online unit Curriculum Development
  - Individual work
  - Based on their own curriculum
  - Short knowledge clips, no lectures
  - Formative feedback half way
  - Peer review

• No synchronous contact in this unit
Evaluation results

<table>
<thead>
<tr>
<th>Statements</th>
<th>Likert scale 1-5 (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The assignments of this unit were of high quality</td>
<td>4.4 (0.7)</td>
</tr>
<tr>
<td>The feedback that I received during this unit was of high quality</td>
<td>4.3 (1.1)</td>
</tr>
<tr>
<td>Overall, I learned a lot during this unit</td>
<td>4.5 (0.7)</td>
</tr>
</tbody>
</table>

“Real-life assignment, heavy work but highly valuable”

“Workload and expectations were far too great”

“...very good. Very hard but very valuable. I learned a great deal about curriculum development. I enjoyed swapping assignments with someone at a distance. This was a real benefit in the Maastricht program. The course director was very enthusiastic and approachable.”

Maastricht University
Lessons learned

• Flexibility:
  - Allow working at own pace
  - Back-up for peer review

• Visibility of staff (teacher presence)
  - Videos and pictures
  - Repeat that questions are welcome

• Make expectations (more!) explicit

• Guidance
  - Look at plans
  - Formative feedback
Example 3:
MOOC about Problem-Based Learning

Problem-Based Learning: Principles and Design

Students at the centre!

Instructors:
Dr. G. (Geraldine) Clarebout
Dr. A. (Amber) Dailey-Hebert
H.T.H. (Herco) Fontejn, Drs.
Dr. D.M.L. (Daniëlle) Verstegen

A free course from Maastricht University

October 5, 2015 - December 7, 2015

Registration for this course has ended.
All Tracks: Problem-based Learning: How, What and Why? (part A)

"I travelled to Maastricht, the Netherlands, to see whether their education, would be suitable for our educational program. I stayed for a month, to see if I could learn more about the PBL system. I learnt that students work in small groups guided by a staff member, they call "problems". Students are required to discuss their ideas and solutions. Subsequently, they spend considerable time in the library or at home, researching the appropriate learning resources. Thereafter, they meet again as a team to analyze their findings. Students have to do a lot on their own and they need to interact with their peers. I do not know how, whether this approach is suitable for our students and how it works and why. I need to know more...."

In short, PBL offers a very different learning environment with different problems and tutors. This approach is used in this university across all disciplines, from medicine, health sciences, psychology, business and science, and many other fields. They claim that it prepares students well for the demands of our present world.

Assignment:

Brainstorm:
1. Discuss the problem description given above in your team. Brainstorm what you can do and what you do not yet understand about problem-based learning.
2. Generate questions that need further study.
3. When you have done this, ask one team member to submit a set of questions using the 'Get Started' button below.

Self-study (may continue into next week):

Team 'TUTOR'

Interested in the role of the tutor, please join the team!

Recenct Activity:

learning goals assignment 1 team touter
1. What does PBL entail? 2. Would PBL work in all situations? (cultural, discipline etc) 3. Is PBL the perfect tool as presented on paper or are there drawbacks in practice? 4. How do you make sure that discussions are sufficient in depth and the right topics are covered? 5. Is PBL more...
Online
No tutors
## Participants

<table>
<thead>
<tr>
<th></th>
<th>Start</th>
<th>In groups</th>
<th>Finished</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants</td>
<td>2977</td>
<td>794</td>
<td>264</td>
<td>9.4%</td>
</tr>
<tr>
<td>Groups</td>
<td>109</td>
<td></td>
<td>49</td>
<td>45%</td>
</tr>
</tbody>
</table>
Satisfaction of participants

<table>
<thead>
<tr>
<th>Selection of items</th>
<th>Mean (1-5)</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall, I am satisfied with the organisation of the MOOC</td>
<td>4.1</td>
<td>.8</td>
</tr>
<tr>
<td>I have learned a lot</td>
<td>4.3</td>
<td>.8</td>
</tr>
<tr>
<td>The MOOC encouraged me to interact with my fellow students</td>
<td>4.2</td>
<td>.9</td>
</tr>
<tr>
<td>[After 3 months] I have integrated (parts of) what I have learned in my daily work.</td>
<td>4.0</td>
<td>1.13</td>
</tr>
</tbody>
</table>

“Perfect, I love a lot this course!! Is very nice and a lot interesting”

“It was really a pleasure participating in the MOOC and communicating with so many participants from all over the world - it really broadens one's mind and enhances creative thinking. We are so grateful for this experience.”

“I would like to congratulate all the staff for the great quality of the course: videos with interviews of teachers and students [...]. All of this material was very well done, with great technical and conceptual quality.”

“I am having a problem with my group. I was part of group 7, but all of them left the course.”
Assignments & group observations

• Inspection by PBL task designers:
  - Quality varied
  - Good ones far better than expected
  - Others often collection of individual contributions

• Observation of groups
  - One size does not fit all: large differences
  - Interaction, not always deep discussion
  - Explicit discussion team process and task approach +
  - Adaptability and positive atmosphere +
Wrap-up

• What we have learned ...
Online/blended education: Opportunities to serve a more diverse target group

• Globalization
• Aging population
• Continuing professional education
Learning with and from each other
ONE SIZE DOES NOT FIT ALL
Some guidelines

- Adapt to the target group
- Take (more!) time to prepare
- Be creative, but keep it simple
- Give the lead to participants
- Be (more!) explicit about expectations
- Keep in contact-Make teachers visible
- Incorporate additional guidance
- Accept that you cannot cater for all
Questions and discussion

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