

# Social learning in Learning Networks through peer support

Research findings and pitfalls

*Francis Brouns, Amy Hsiao, CELSTEC*  
*Networked Learning Conference, 2-4 April 2012*

Centre for Learning Sciences and Technologies  
[celstec.org](http://celstec.org)



# Introduction

- Introduction
  - Who are we?
- What are learning networks?
- Why peer support?
- Some results
- Your feedback



CELSTEC  
celstec.org



# Who are we?

- CELSTEC: Centre for Learning Sciences and Technologies
- Learning Networks Research and Development programme
- Report on studies by Peter van Rosmalen, Gijs de Bakker, Sibren Fetter, Amy Hsiao, many others

CELSTEC  
celstec.org



# Learning Networks

- Online networks
- Social networks of people
- People connected through network and interactions
- Learn from and with each other



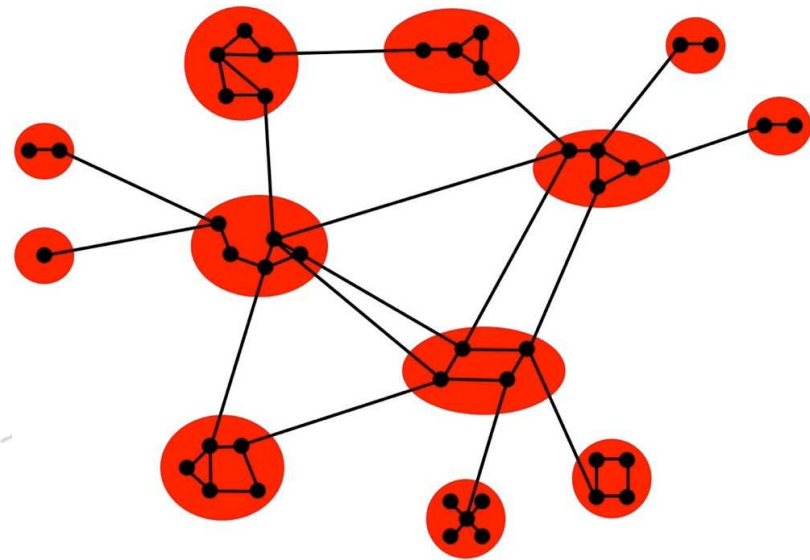
# Social learning through peer support

- People learn from and with each other: knowledge sharing and construction
- Requires social interactions
- Need to provide support to enable and maintain successful interactions



# Ad hoc transient groups

- Ad hoc transient groups
- Learner support
- Network support



CELSTEC  
celstec.org



# Peer support model

Pre-condition A Learning Network with learning material, and a set of users with profiles

---

Main steps

1. Anne poses a question.
2. The system determines
  - Learning progress.
  - Most suitable peers.
3. System sets up a collaboration area with question and guidelines.
4. Selected peers get an invitation to assist.
5. Anne and the peers discuss and formulate an answer
6. Anne closes the question and rates the answer

---

Post-condition Answer is stored



# Peer matching criteria

- Context
- Type of question
- Objective
- Available user profile data





# Two examples learner support

- ASA: A tutor locator
  - Non-formal learning network
  - Content related questions
- SAPS: Synchronous Allocated Peer Support
  - Higher education and non-formal learning network
  - Course related questions



# Example sense of community

- TeLLNet: Ask a question
  - International community of teachers
  - Questions related to TeLLNet, projects and subjects



CELSTEC  
celstec.org



# Results

- Positive results
- ASA and SAPS
  - Questions satisfactorily answered
  - More questions in shorter time span when selecting based on criteria
- TeLLNet
  - Helped teachers to get into contact with each other



# Cognitive load

- Mental effort and processing involved in performing task
- Reduce inefficient aspects to optimise performance
- Learning network without social support induces too much unwanted cognitive load



# Two studies

- Non-formal learning network
- Peer tutoring
  
- Psychology curriculum
- Working in pairs



CELSTEC  
celstec.org



# Results

- Large drop out
- Few usable data cognitive load
- Very few questions asked



# Summary

- Peer support in Learning Network required for knowledge sharing and construction.
- Ad hoc transient group likely peer support model.
- How to select peers depends on context.
- Better results when selecting on criteria than random.
- Difficult to run experiments in Learning Networks context: no controlled situation; can't single out aspects.
- Difficult to apply theories and approaches from established instructional design and learning domain.
- Holistic approach necessary.



# Further information

- [francis.brouns@ou.nl](mailto:francis.brouns@ou.nl)
- ASA: Peter van Rosmalen
- SAPS: Gijs de bakker
- TeLLNet: Sibren Fetter
- Cognitive load: Amy Hsiao
- For publications, check our repository at <http://dspace.ou.nl>
- More information about CELSTEC at <http://celstec.org>
- More information about Learning in Learning Networks at <http://openu.nl/web/topic-leren-in-netwerken>

