Social learning in Learning Networks through peer support

Research findings and pitfalls

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Introduction

• Introduction
  – Who are we?
• What are learning networks?
• Why peer support?
• Some results
• Your feedback
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
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
# Peer support model

<table>
<thead>
<tr>
<th>Pre-condition</th>
<th>A Learning Network with learning material, and a set of users with profiles</th>
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</thead>
<tbody>
<tr>
<td>Main steps</td>
<td>1. Anne poses a question.</td>
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<td>2. The system determines</td>
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<td>– Learning progress.</td>
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<td>– Most suitable peers.</td>
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<td>3. System sets up a collaboration area with question and guidelines.</td>
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<td>4. Selected peers get an invitation to assist.</td>
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<td>5. Anne and the peers discuss and formulate an answer</td>
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<td>6. Anne closes the question and rates the answer</td>
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<tr>
<td>Post-condition</td>
<td>Answer is stored</td>
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</tbody>
</table>
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
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
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
- 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](http://dspace.ou.nl)
- More information about CELSTEC at [http://celstec.org](http://celstec.org)