Project title:
Guided self-organisation in Learning Networks as a means to optimize cognitive load and transfer of information seeking skills

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Conception paper

• Using Peer Tutoring to Optimise Knowledge Sharing in Learning Networks: A Cognitive Load Perspective
Identifying cognitive load during the knowledge sharing process

Personalized learning goals

Self-directed lifelong learner

Learning Networks (LNs) are “a particular kind of online, social network that is designed to support non-formal learning in a particular domain” (Sloep, 2009, p.64).

How to share knowledge with others?

How to find a collaborator? How to structure and maintain the knowledge sharing process?

A complex question

Extraneous load

High intrinsic load

Cognitive overload
Using peer support to optimize the knowledge building process

Extraneous load is decreased by

Using an automatic peer tutor selection system to find suitable tutors for me: L1, L2, L12 are selected.

I-tutee

Selected peer tutor: L1

Intrinsic load can be shared or decreased by

Using role specifications of tutor and tutee to share intrinsic load.

Using interaction structure of peer tutoring to scaffold the collaboration process of knowledge sharing: A tutor and a tutee become extra cognitive resources for each other.
The 1st Experiment

• *Research question*
• Without guidance that supports knowledge sharing, does the learning environment of LNIs cause cognitive overload when learners work on complex learning actions?
• **Hypothesis**
• Without guidance that supports knowledge sharing, the learning environment of LNs causes cognitive overload when learners work on complex learning actions with detrimental effects on learning effectiveness and learning efficiency; this does not occur on simple learning actions.