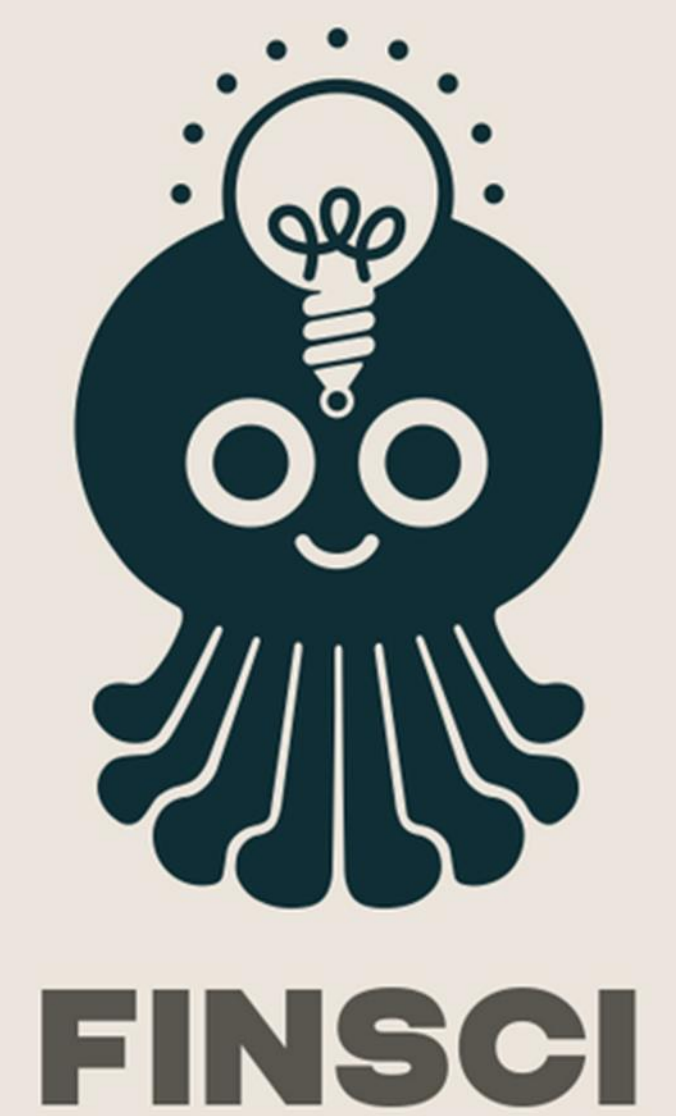


A learning environment for Internet reading in primary education

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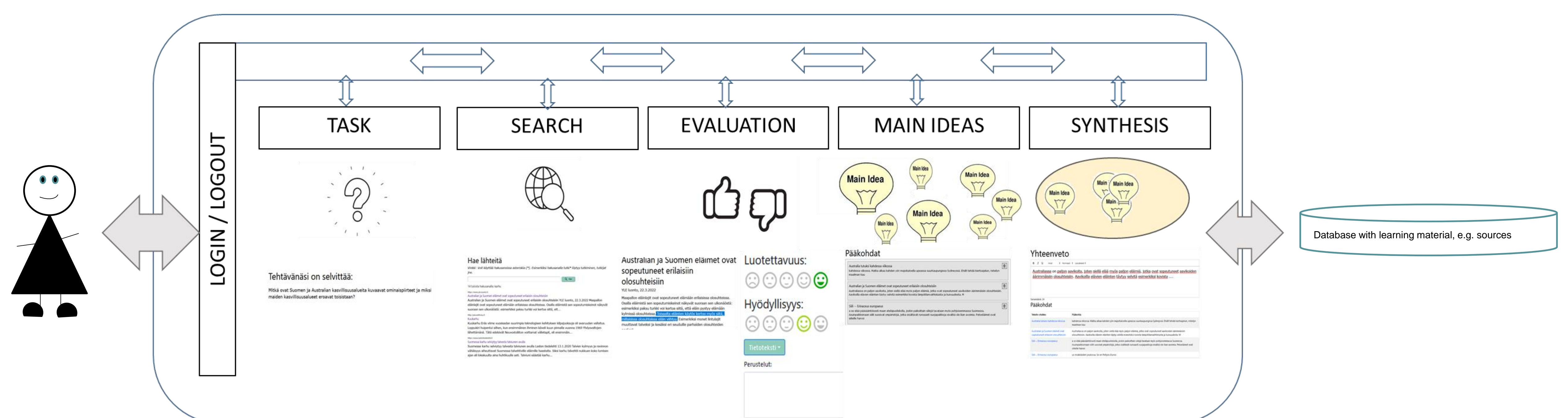
Introduction

Learning is becoming more digital in schools. As a part of “monilukutaito” (multiliteracy) multiple source comprehension has become important. But processing multiple sources is not just a simple task but a complex cognitive and emotional process (e.g. Britt & Rouet, 2012). Surveys like Information Literacy Study ICILS 2018 results show that students’ skills are insufficient (European Union, 2019) and students need explicit training in these skills.

KidNet

KidNet is a closed learning environment for strengthening multiple source comprehension. It is based on the whole task approach (Lim et.al. 2009). It covers the entire multiple source comprehension process, from the inquiry task, searching for information, bookmarking, marking the main ideas to writing a synthesis. This learning environment has been used in trials in primary schools with fifth- and sixth-graders.

KidNet



Results from Pilot studies

A likert-scale usability questionnaire was performed after a 12 lesson lasting intervention. The students (N=35) found KidNet easy to use and useful for learning purposes. They used KidNet in very different ways with different strategies. Furthermore they would use it also in other subjects. In the trials the students were mainly guided by the teachers. But it can be assumed that individual guidance provided by KidNet is needed in future and via tutorials students’ strategies can be supported in more efficient way.

Future steps

KidNet is a closed learning environment. KidNet not only facilitates learning of multiple source skills but also content knowledge. We focus on environmental studies and learning of complex phenomena like energy, climate change, and evolution. Thus, further development of inquiry tasks in accordance to learning environment is crucial. Additionally, more features for processing the main ideas are important, for example structuring the main ideas, and adding own ideas. Furthermore, support functions like individual feedback will be improved.

Britt, M. A., & Rouet, J. F. (2012). Learning with multiple documents: Component skills and their acquisition. In J. Kirby & M. Lawson (Eds.), *Enhancing the quality of learning: Dispositions, instruction, and learning processes*, 276-314. New York, NY: Routledge.

European Union (2019). *The 2018 International Computer and Information Literacy Study (ICILS): Main findings and implications for education policies in Europe*, Luxembourg: Publications Office of the European Union.

Lim, J., Reiser, R. A., & Olina, Z. (2009). The effects of part-task and whole-task instructional approaches on acquisition and transfer of a complex cognitive skill. *Educational Technology Research and Development*, 57(1), 61-77.

FINSCI (Fostering Finnish Science Capital) on tutkimushanke, joka haluaa tutkia ja kasvattaa suomalaisten tiedepääomaa, jotta jokaisella olisi yhä paremmat edellytykset ymmärtää vaikkapa ilmastonmuutoksen kaltaisia ilmiöitä. FINSCI on Suomen Akatemian yhteydessä toimivan strategisen tutkimuksen neuvoston (STN) rahoittama hanke.

Oppiva Salo - KidNet project