

An Intelligent Mobile Tutoring Tool Enabling Individualisation of Students' Learning Processes

Mobile devices like mobile phones bring new dimensions to vocational education. They extend the learning environment and integrate it with real life environments like working places, where learning can occur in an authentic situation and context. Our experience shows that pedagogically driven and designed techniques can make a difference in the learning settings, if they are carefully designed to fit the real users' context and support the individualisation of the students' learning processes.

Älykkö is an intelligent mobile tutoring tool for teachers. It enables interaction and tutoring dialogue via mobile devices like mobile phones (SMSs) and PDA's (see Figure 1). The tool contains semiautomatic and automatic guidance for learners' learning processes, enabling automatic individualisation. In addition, Älykkö contains ready-made tutoring expressions and a documented tutoring dialogue for teachers' use, in order to reduce the teacher's cognitive load needed just for memorizing.

Älykkö is created based on the examination of the teachers' pedagogical needs. In the conducted study, 52 vocational teachers were peer-interviewed in order to examine, (1.) what kinds of mobile technology and applications are needed to promote learning in authentic situations, (2.) what kinds of learning environments or tools would support open and distance learning, as well as (3.), how to facilitate the teachers' work like tutoring and guiding the students' learning processes by advanced mobile technology.

The teachers' structured peer-interviews work as a notable ground for the development of an educational software, but in order to design intelligent educational technology, the expertise of computer scientists plays the significant role. Also the pedagogical model developed for mobile tutoring will be introduced and discussed more closely in the paper.

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Figure 1. The Web interface for Älykkö

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