

# Intelligent Knowledge Assessment Systems – Myth or Reality

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**Abstract.** The concept of intelligent tutoring systems is discussed with focus on their usage as knowledge assessment and self-assessment tools. The main problems in knowledge assessment in study courses with large number of students are how to individualize the assessment and reduce the workload of teachers. The essence of possible solution is the development of intelligent knowledge assessment systems which are adaptive, enable systems thinking and promote systematic and computable knowledge assessment and/or self-assessment. The role of concept maps as knowledge assessment and self-assessment tool as well as their advantages and disadvantages are shown in details.

The historical retrospection on the development of concept map based system IKAS is presented. Lessons learned and issues for further research are highlighted. The special attention is given to the framework for evaluation of complexity of concept map tasks which at present is under the development.