

## How can Self-Regulated Teaching & Learning be Supported by Intelligent Tutoring System? (Poster)

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### Abstract

The goal of the research is to investigate the self-regulation processes in learning and teaching, by using the Intelligent Tutoring System (ITS) for student-teachers' pedagogical pre-service practice. The Intelligent Tutoring System's approach was based on three principles: developing self-regulation components (cognition, meta-cognition and motivation), and alternately observing pedagogical situations in student's and teacher's perspectives by using "Learning by teaching" web-based interactive environment (ITS). A total of 100 students, who will participate in the study, will be divided randomly into two research groups in which they will learn under one of the following conditions: ITS environment with student's and teacher's perspectives combination (ITS+2P), and ITS environment with teacher's perspective only (ITS+1P). SRL pre and post measures will be assessed in two complementary perspectives: a self-report and a time-series trace logs' analysis of self-regulation while using the Intelligent Tutoring System (Educational Data Mining). We are expecting significant differences to emerge between the four learning groups:  
ITS+2P > ITS+1P.

**Keywords:** Educational Data Mining, Self-regulated Learning, Intelligent Tutoring System, Meta-cognition.