

Self-assessment rubrics to help students develop scientific abilities and instructors to reduce their workload

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Apstrakt. The course Project lab at the University of Ljubljana, Faculty of mathematics and physics, aims at developing scientific abilities of students in an environment, which simulates an authentic research setting (Planinšič, Eur. J. Phys., 2007). First and second year students in groups of four to five solve open-ended experimental problems and submit a report in the form of a web-page. Students use Scientific Abilities rubrics during their work, and instructors use the same rubrics to evaluate their reports, helping them to improve the reports until they meet agreed criteria. Most of the rubrics are translated Rutgers Scientific Abilities rubrics (Etkina et al. Phys. Rev. ST-PER, 2006), but rubrics for the evaluation of web-reports were developed by us. The use of rubrics significantly reduces the workload on the instructors and at the same time increases the quality of student reports. In the contribution participants will have an opportunity to familiarize themselves with the rubrics and their use.