

T7_17 TEST AND ASSESSMENT TO SUPPORT COOPERATIVE LEARNING OF PHYSICS WITH MOODLE-STYLE WEB APPLICATIONS

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Strategies of cooperative learning often demand to sort participants by skill: Either to mix "experts" with "rookies" to exchange knowledge peer-to-peer based, or to couple peers with similar attitude and skill together to solve a problem groupwise, yet in more or less the own pace. This puts additional stress on teachers, since they are now expected to estimate the topic-related performance of every student when preparing the next lesson's groupwork. An alternative to relying on guts-feeling might be the use of Web-based Test and Assessment. At cologne university, we modified ILIAS, a Moodle-Style, SCORM compliant Learning Management System, to serve as automatic generator of calculus-based exercises in physics. With the already existing Test and Assesment functionality, and built-in tools for evaluation and data processing, ILIAS can now be used as a tool for both teacher and students to assess skills prior to any lesson, define and refresh minimum demanded skills, and find appropriate partners for successful cooperative learning. Examples of the usage in several cooperative learning styles in physics teaching will be demonstrated.