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## **Experience of blended learning in software engineering courses**

Learning software testing on an advanced level in higher education is often challenging for students due to the many facets of the topic. These facets include but are not restricted to, understanding testing techniques, integration of said techniques into the software engineering process, and how to practically use testing tools. To address this challenge, and explore its pedagogical efficacy, a blended learning approach was applied in the Software Testing course (7,5 hp) at the Software Engineering Masters program at Blekinge Institute of Technology. The majority of students in the course are international with, on average, moderate proficiency in English. As a consequence, several students have difficulties fully grasping the contents of the lectures. In parallel, it is perceived that today's students are comfortable with learning technologies and experience online lectures as an effective way of learning.

The blended learning was carried out through a dynamic mix of physical- and virtual student-active rooms. The course included 21 lectures/tutorials with an even distribution between onsite-lectures and live-streamed online lectures. All lectures were recorded and published on the LMS (online learning management system) where discussion forums were also available and used to increase student participation. The students were encouraged to use these online materials to get a deeper understanding of the course contents.

By analyzing students progress throughout the course, students evaluations of the course, and students view rate of videos and activity on the LMS; we conclude that the recorded lectures provided value for both students falling behind and for students aiming to enhance their understanding of software testing. As such, blended learning, with a mix of traditional campus- and online lectures with learning technologies, was supportive for students and increased student satisfaction and improved the students learning of course contents.