

Prof. Mikko-Jussi Laakso holds a university research fellow position at University of Turku, Finland. His main research interest are automated assessment, immediate feedback, learning analytics, gamification, effect of collaboration in computer science education He is heading Centre of Learning Analytics and ViLLE team -research group in University of Turku. The team develops ViLLE - the collaborative education tool platform.

Mokymosi analitika ir nepertraukiamas vertinimas nuo pradinės mokyklos iki universiteto: Suomijos patirtis

Learning analytics and continuous assessment from primary school to university level: Experiences from Finland

Abstract. The Learning Analytics Center at the University of Turku aims to advance the usage of learning analytics for the entire span of the Finnish education system. The center works in conjunction with the Finnish schools, Finnish education export authorities and the collaborators of its host university to advance research-based methods in teaching, and serves as a national hub in its research field. The main responsibility of the center is the development and utilization of modern analysis methods and their application in educational settings.

We have create electronic learning path in mathematics and programming for Finnish school system with emphasizes active learning, gamification, and learning analytics. The path has been scientifically proven to enhance student learning and motivation. Tens of thousands of students all solving tens of millions of tasks with immediate feedback annually all over Finland. While student are solving their activities we can automatically detect their typical misconceptions.

To increase the amount of interaction in higher education, we have introduced Tutorial-Based Learning (TBL) on our courses. TBL is an educational method combining collaboration and active learning. In TBL, students answer tutorials consisting of automatically assessed exercises and learning materials, such as text, images, videos and code examples, in collaboration with another student or in small groups. Our studies have shown that utilizing TBL can increase learning performance statistically significantly and improve student motivation and active participation drastically. In addition, we can automatically identify students-at-risk early in university courses.

ViLLE is a collaborative education platform developed at the University of Turku. With ViLLE, teachers can create virtual courses and various types of automatically assessed exercises with immediate feedback easily. All created resources can be shared, commented and evaluated by other teachers. ViLLE automatically gathers huge amount of data about students' learning behavior and results while they are using the system. This creates new research possibilities, as huge amount of quantitative and qualitative data becomes available. The effectiveness of ViLLE has been evaluated in various scientific studies, and based on the results, ViLLE enhances students' learning significantly. More information can be found at <http://villeteam.fi/en>