

Forget about lecturing

The Computer Science department at Reykjavik University is offering a BS degree (90 credits) in Computer Science, with three different options of studying: School-based Education, University Education While Working (EWW) and Distance Education. Each semester is divided into 4 theoretical courses (6 ECTS each) that are taught for 12 weeks followed by an exam period. After the exam period all the first year students attend a three-week practical project work course. The number of students in the spring of 2006 was 374 or 14% of all RU's students.

Usually the teaching is rather traditional consisting of lectures and practical sessions but most of the lecturers are recorded for the EWW and distance students but school-based student also have access to recorded lectures. The students have access to these lectures (files) through the school learning management system MySchool where they can download and listen to the lectures when ever they want and as often as they want.

First year students start in a C++ course (6 ECTS) which they consider both difficult and time consuming. To make the situation better and to decrease dropout and failure we thought about new methods. The system we designed was to have no lectures, only working sessions or work-



shops. Instead of 3 lectures and 2 workshops a week the students got 5 workshops a week in small groups. The main idea was that teachers and students could spend the time together in a more productive way, students working on their programming code and teachers assist them on a one-to-one basis. The teacher had already prepared recorded material for the course, some were from lectures last year – some were new. The students were encouraged to bring their own headphones and listen to the material while practicing programming. The teacher also prepared a short online quiz each week that was a part of the course assessment. Extra online practice quiz was also offered the day before the real quiz each week and it turned out that the students used them to prepare for the real quiz and got higher grades. The students seemed to be very pleased with this structure of the course and rated it highly on the course evaluation. In 2003 the average students grade of the course was 3.58 increased to 3.81 (maximum score is 5).

This experiment has affected other teachers at the School of Computer Science. At least two have reacted directly on the idea and are only giving one formal lecture a week (45 min) in stead of three and have three lab sessions (3x45 min) a week in stead of two. Other teachers have put more emphasis on activating the students and reducing long formal presentations. One of the ideas for future development is that each student has two screens, one to watch recorded lectures or other material and learning objects and one to work on their program code.

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