

Student Feedback of a Major Curricular Reform Based on Course Integration and Continuous Assessment in Electrical Engineering

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Abstract : A major curricular reform was implemented in Metropolia UAS in 2014. The teaching was to be based on larger course entities and collaborative pedagogy. The most thorough reform was conducted in the department of electrical engineering and automation technology. It has been already shown that the reform has been extremely successful with respect to student progression and drop-out rate. The improvement of the results has been much more significant in this department compared to the other engineering departments making only minor pedagogical changes. In the beginning of the spring term of 2017, a thorough student feedback project was conducted in the department. The study consisted of thirty questions about the implementation of the curriculum, the student workload and other matters related to student satisfaction. The reply rate was more than 40%. The students were divided to four different categories: first year students [cat.1] and students of all the three different majors [categories 2-4]. These categories were found valid since all the students have the same course structure in the first two semesters after which they may freely select the major. All staff members are divided into four teams respectively. The curriculum consists of consecutive 15 credit (ECTS) courses each taught by a group of teachers (3-5). There are to be no end exams and continuous assessment is to be employed. In 2014 the different teacher groups were encouraged to employ innovatively different assessment methods within the given specs. One of these methods has been since used in categories 1 and 2. These students have to complete a number of compulsory tasks each week to pass the course and the actual grade is defined by a smaller number of tests throughout the course. The tasks vary from homework assignments, reports and laboratory exercises to larger projects and the actual smaller tests are usually organized during the regular lecture hours. The teachers of the other two majors have been pedagogically more conservative. The student progression has been better in categories 1 and 2 compared to categories 3 and 4. One of the main goals of this survey was to analyze the reasons for the difference and the assessment methods in detail besides the general student satisfaction. The results show that in the categories following more strictly the specified assessment model much more versatile assessment methods are used and the basic spirit of the new pedagogy is followed. Also, the student satisfaction is significantly better in categories 1 and 2. It may be clearly stated that continuous assessment and teacher cooperation improve the learning outcomes, student progression as well as student satisfaction. Too much academic freedom seems to lead to worse results [cat 3 and 4]. A standardized assessment model is launched for all students in autumn 2017. This model is different from the one used so far in categories 1 and 2 allowing more flexibility to teacher groups, but it will force all the teacher groups to follow the general rules in order to improve the results and the student satisfaction further.

Keywords : continuous assessment, course integration, curricular reform, student feedback

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