

Measuring qualification effects of a new pedagogy which embeds learning and assessment activities within each student's rich professional context of practice

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Project Outline

Developing professionally-relevant modules is a challenge for our Computing Masters qualifications:

- pedagogical approaches that present only toy problems and fictitious examples lose the richness of real-world open-ended situations that students will encounter when they apply their studies in the industry
- vitally important critical thinking and self-updating skills need longitudinal development over a qualification

Three new post-graduate Computing modules have adopted a pedagogic model that addresses these issues. The project aims to evaluate the effectiveness of this approach within the new qualification with particular attention to cumulative effects along different pathways students may take, culminating in the capstone research project module.

This project is timely in that we have data from two presentations of each module which should provide some valuable early insight into the effectiveness of the approach.

Main project objectives include:

- comparing and contrasting the use of the rich context across modules;
- quantifying effects through pathways on students' performance, including satisfaction and retention, particularly for students who have completed multiple modules;
- understanding the benefits of particular skill development within the qualification;
- quantifying impact on module teams' and tutors' workload and practices;
- identifying further opportunities for sharing resources and practices across disciplines.

Method

The project will conduct comprehensive data collection and analysis focussing on pathways involving the three modules under study, for which significant amounts of quantitative and qualitative data already exist. The three module

chairs are part of the project and will be able to contribute their insight to the analysis. Further data may be collected from tutors and, possibly, students: ethical clearance will be sought in those cases. Available data from other modules will be used for comparison and benchmarking.

To address the objectives of the project we will:

- establish an overall evaluation framework, including what should be measured, why and how
- identify representative (anonymised) student case studies across pathways, to be used for in-depth analysis and comparisons
- collect data from individual modules around agreed indicators and (anonymised) student case studies
- analyse the data
- compare practices across the modules, based on module chairs' and tutors' experience
- report on, and disseminate the findings of, the project.

Benefits

We expect that the analysis will provide an evidence-based assessment with direct benefit to:

- the existing module teams, for further development and fine-tuning of the approach;
- other module teams wishing to implement or capitalise on the approach;
- qualification leads, as part of wider qualifications assessments.

The project will also deliver a qualification-wide evaluation framework, and an in-depth data analysis and comparisons within our new Masters qualification in Computing. This will provide a better understanding of what works and delivers value in a qualification, which will allow us to develop techniques to be more effective as educators and may well impact students' satisfaction, performance, retention and employability.

