Title of Project | Programming Exercise Bank: Progressive, Self-Guided Exercises for Practicing Java Programming
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Project Leader | Professor Peter McBurney
Lead Department | Informatics
Other contributors/Departments | Student intern: Mr Jaroslaw Pawlak
| With assistance from: Mr Krzysztof Rosset and Mr Max Smith-Creasey.

**PROJECT DETAILED**

**Outputs:** What has been produced?

A series of Java programming exercises, together with solutions and quizzes, for students in the module 4CCS1PRP: Programming Practice.

**Outcomes/Impact:** To what extent have you achieved the original aims of the project? Please include examples where possible.

The project goals were achieved successfully. The intended programming exercises were created and uploaded to the module web-pages in KEATS, for use by students in the module in Term 1 of 2012-2013 Academic year. In addition, a set of short, self-marking quizzes were also produced and uploaded to KEATS.

**Supportive factors:** What were the main factors that contributed to the successful outcomes of the project?

Having an intelligent and committed student intern who undertook the development of the exercises, together with assistance from two other students who tested and checked the exercises.

**Challenges:** Have you experienced any barriers or challenges in developing your project? What could be done to support innovation in the curriculum?

The main challenge has been subsequent to the completion of the project: Persuading students enrolled in...
the Programming Practice module to undertake the additional exercises created by the project. The more able students have welcomed the additional challenging exercises, but the less able are (as always) reluctant to practice sufficiently to learn or master programming.

**Recommendations**: Based on your study, what recommendations would you make for improving the curriculum and student experience generally? Are there any wider implications of your project for the College/University undergraduate and/or postgraduate curriculum? In particular what would be the implications of introducing your innovation on a large scale across a range of disciplines?

There are still challenges in teaching a practical subject like computer programming, especially since successful programming requires people to think in ways they usually find novel. These challenges are faced by all university departments teaching computer programming, and I plan to discuss how to deal with them in a paper for the King’s Excellence in Teaching conference in June 2013.

**Dissemination**: How has the project been shared with colleagues within and beyond the institution?

The exercises and quizzes created were uploaded to KEATS, and so are available to other staff members at KCL. More work would be needed for wider dissemination.