



Promoting Post 16 Stem Related Education by Introducing Java Fundamentals in School

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Abstract

Recent evidence, including the recommendations of the National Council for Educational Excellence (NCEE, 2008, 2009), indicates that links between schools and tertiary level institutions are integral to encourage post 16 students to continue into Higher Education. Hence, we established the project "Widening Access Through Introducing Programming in Schools" (WABIPS), which provides a partnership between tertiary and secondary level education enriching the school curriculum and facilitating a communication medium for the schools by increasing accessibility to education and life at third level. This project is about an articulation between effecting change for the 14-19 year old student (Balls, 2008) through learning, engagement and sustainability in computing and engineering technologies.

For three years, WABIPS has enabled educators from higher education to go out to schools and deliver Java programming classes, either as compact three day courses or delivered once per week over the academic year. In the first year of the project, we specifically targeted schools that already have a large number of students that progress to higher education, with the aim of providing students with an insight into what they will study if they pursue a computer science related discipline. In the second year, we specifically address the gender imbalance, often encountered in STEM related subjects, by targeting students in female schools and in the third year we address the issue of religious imbalance found in Northern Ireland. To date over 200 students have completed the WABIPS programme.

Recently we have conducted an evaluation with all of the students that have completed the WABIPS programme to investigate whether participation in the course has encouraged them into higher education, increased their interest in STEM related subjects etc. The results obtained to date are positive, demonstrating an increased interest in the subject areas and also above average performance of the students within their first year of study in higher education.

References

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