

## Write Now Mini-Project

Research carried out in 2007

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### **TITLE OF PROJECT:**

**Does reflective writing in the Personal Development Portfolios (PDP) improve science and engineering students' learning?**

### **INSTITUTION:**

London Metropolitan University

### **PROJECT LEADERS:**

Peter Chalk and Dafna Hardbottle

### **DISCIPLINE/DEPARTMENT:**

Computing

### **MODULE:**

First year, first semester Higher Education Orientation (HEO) module 'Computing Abstraction and Skills'

### **YEAR/LEVEL OF STUDENTS:**

First year undergraduates

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### **CONTEXT**

Science and engineering students are well known to be a particular group lacking the skills of reflective writing and some commentators have proposed an approach based on personal development planning as a means of improving them. This paper describes a study of first-year undergraduate students on computing courses at London Metropolitan University (London Met) Like most universities London Met has embedded the Personal Development Portfolios (PDP) in the undergraduate programme. For some students, it is hoped the process of reflection embedded in the PDP - as evidenced by examples of reflective writing - will improve their approach to learning, achievement and employability.

For science and engineering students at London Met in particular, there may be additional reasons for encouraging reflective writing: the non-traditional education background of the majority of our students, evidence of plagiarism and a poor record of completing final year projects and the technical nature of the subject precluding opportunities for reflective writing. There is evidence that students in some science and engineering subjects lack some of these skills.

### **PROJECT OBJECTIVES**

We hoped to identify tasks and structures of support that would encourage reflective writing skills with outcomes that might influence teaching strategy, learning object design and the process of assessment. We wanted to produce a guide for lecturers on how to categorise and assess levels of reflective writing (a Moon inter-rater tool). We also hoped to incorporate an additional strategy by designing a reusable learning object incorporating these findings, similar to the work of the RLO-CETL, but specific to science and engineering tasks.

## **METHODOLOGY**

The study focused on analysing writing in students' PDPs using textual analysis to identify categories of reflective writing, based on the work of Jenny Moon and others. The textual analysis included an inter-rater comparison tool to verify the placement of extracts into one of four categories described by Moon as descriptive writing, descriptive reflection, dialogic reflection and critical reflection.

Computing students were asked to volunteer for the project, with guaranteed anonymity and provision of feedback on their reflective writing skills and how to improve them – so that we did not identify any weaknesses without attempting to assist the student

## **DESCRIPTION OF PROJECT**

Computing students were asked to use the learning object to improve the reflective writing in their coursework report.

## **ASSESSMENT OF IMPACT OF PROJECT**

As a result of our findings we went on to the next Write Now project, developing a RLO (Reusable Learning Object) for programming students.

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## **DISSEMINATION**

- Chalk, P. & Hardbattle, D. 'The role of personal development planning in improving the reflective writing skills of science and engineering students', at London Met Teaching & Learning Conference [http://www.londonmet.ac.uk/londonmet/library/o64237\\_3.pdf](http://www.londonmet.ac.uk/londonmet/library/o64237_3.pdf) 10/7/2007
- Chalk, P. & Hardbattle, D. 'Does reflective writing in the PDP improve science and engineering students' learning?', poster at Research Symposium: Opening The Gateway: Keys to Understanding Student Learning and Writing. Liverpool Hope University CETLs, 26/6/07
- Fisher, K & Hardbattle, D and Chalk, P (2010) 'Reflective Practice for Programming Students: adjusting the blend to improve skills', *Investigations in University Teaching and Learning* (forthcoming), London Metropolitan University.

## **AVAILABILITY OF PROJECT OUTCOMES**

- Chalk, P and Hardbattle, D (2007) 'The role of personal development planning in improving the reflective writing skills of science and engineering students', paper [http://www.londonmet.ac.uk/londonmet/library/o64237\\_3.pdf](http://www.londonmet.ac.uk/londonmet/library/o64237_3.pdf) in *Investigations in University Teaching and Learning* <http://www.londonmet.ac.uk/capd/in-house-journal-investigations/volume-4-number-2.cfm> Teaching & Learning Conference Edition, Summer 2007, ISSN 1740 5106, London Metropolitan University 10/7/07 (ppt [cid:part1.04010201.03070906@londonmet.ac.uk](mailto:cid:part1.04010201.03070906@londonmet.ac.uk)).
- Chalk, P and Hardbattle, D (2007) 'Does reflective writing in the PDP improve science and engineering students' learning?', poster [cid:part2.02050900.06060706@londonmet.ac.uk](mailto:cid:part2.02050900.06060706@londonmet.ac.uk) at Research Symposium <http://www.writenow.ac.uk/260607.html>: Opening The Gateway: Keys to Understanding Student Learning and Writing/. Liverpool Hope University CETLs, 26/6/07.

## **FUTURE PLANS FOR PROMOTING PROJECT WORK/OUTCOMES**

We plan to embed our approach across all Computing modules, and to develop a generic RLO for this purpose.

## **REFERENCES**

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RLO-CETL (Unknown Year) *Reflective Writing RLO*, [www.rlo-cetl.ac.uk/rlos/demos/reflective\\_writing/reflective\\_writing.htm](http://www.rlo-cetl.ac.uk/rlos/demos/reflective_writing/reflective_writing.htm) [accessed 28/9/06].

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