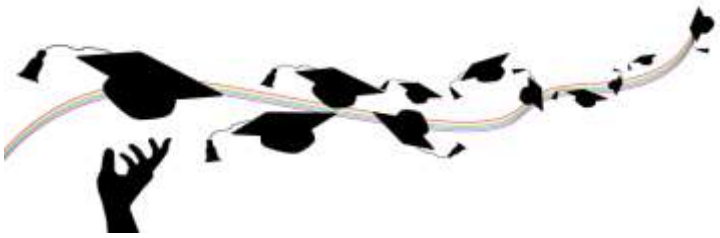

Outduction:
Enhancing the Final Year Experience

Case Study

Title	Final Year Projects in Computing: Enhancing Academic Rigor
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Organisation	School of Computing, Informatics and Media, University of Bradford
Keywords	Final Year Project, Informatics, Computing, Project.
Aim	**Aim for students**: To enhance the quality of critical analysis and reflection in evidence in students' written project reports and portfolios. **Teaching aim** (in order to achieve the aim for students above): To increase the amount of support and feedback given to students within the lecture strand of the module, through the use of short written tasks, marked weekly.
Intended learning outcomes	To enhance students' ability to achieve the following outcomes: On completion of this module you should be better able to: 1. Manage your time: • Show a rigorous approach to the management of a large project 2. Write a high quality academic project report: • Justify your choice of methods and techniques in a rigorous manner and produce balanced arguments based on evidence • Present findings clearly and unambiguously in written form. 3. Present a portfolio of evidence: • produce a high quality portfolio that shows convincing evidence of progress towards a number of module outcomes • show evidence of reflection on own progress
Problem statement (what did the case study seek to address?)	This case study sought to address a number of issues, viz.: - that many students had difficulty in producing written reports that were sufficiently rigorous and written in an appropriate academic style - that many students had difficulty managing their time within the

	project - there was variability in the student experience of supervision - students had difficulty writing reflective pieces showing what they had learned in their projects in a convincing way - there was an uneven use of formative feedback by students
Context	Final year projects (FYP's) are a common feature of undergraduate degrees and often exist in a variety of forms. Jawitz *et al* (2002) identified three broad aims for FYP's: i.e. to teach students research skills, professional skills and discipline-specific skills. Due to the fact there are a host of important aims associated with FYP's, the quality of these pieces of work is often used as an indicator of the standard of the whole degree programme (Rasul, *et al*. 2009). The modules that support FYP's are enormously complex units of teaching and learning. This is due to a range of factors, including the fact that a large number of staff members are involved in supervising the projects, a wide range of different projects are assessed and an FYP module often consists of both a lecture strand and a project strand. This complexity is increased by the fact that FYP's often represent a 'leap in expectations of students' or a 'curricular disconnect' with the rest of the degree (Rasul *et al*, 2009; Dym, *et al*, 2005). This is further illustrated by the following quotation: "[In] the traditional curriculum, ... professional skills like communication and design are not included until the capstone design course, a point at which a host of skills must be applied simultaneously." (Williams, 2002, pg. 203)
Activities	The implementation of two of the recommendations of a recent in-depth module evaluation, viz: 1. To introduce **short weekly written tasks** that are to be submitted within the lecture strand of the module. These tasks are designed to enhance the students' critical thinking skills and use of convincing evidence when justifying the choice of methodology, software, type of application etc. associated with their projects. Detailed formative feedback will be given on individual task achievement. General feedback will also be given to the whole cohort and peer marking will be used as an additional source of feedback. 2. To **redesign the assessed portfolio task** brief in order to deepen the quality of student reflection on their progress in the project.
Issues / evaluation	This module will be evaluated by: - a questionnaire delivered to all students - focus group interviews with smaller numbers of students using issues identified by the questionnaire - interviews with project supervisors - comparing the results and content of the project reports with last

	year's reports - using external examiner comments on the module (this year versus last year)
Hot tips/key points for effective practice	Maximize the amount of formative feedback given to students within the lecture strand of a final year project. This helps to overcome the inevitable variability in project supervision, enhances the quality of written work association with the project and assists students in managing their time more efficiently. Students doing STEM degrees need a program of support and feedback when writing up final year projects as completing a written report of this magnitude is often an unfamiliar task for these students.
References	Dym, C.L. Agogino, A.M. Eirs, O. Frey, D.D., Leifer, L.J. 2005 Engineering Design thinking, Teaching and Learning, *Journal of Engineering Education*, January issue, pg 103 – 120. Jawitz, J., Shay, S. and Moore, R. 2002. Management and assessment of final year projects in Engineering, *International Journal of Engineering Education*, 18 (4), pg. 472 – 478. e Rasul, M.G., Nouwens, F., Martin, F., Greensill, C., Singh, D., Kestell, C.D., Hadgraft, R. 2009. Good practice guidelines for managing, supervising and assessing final year projects, *20 th Australian Association for Engineering Education Conference,* 6-9 Dec 2009. Williams, J.M. 2002 The Engineering Portfolio: Communication, Reflection and Student Learning Outcomes Assessment, *International Journal of Engineering Education*, 18 (2) 199 – 207.