Accelerating Change in Built Environment Education (ACBEE)

Case Studies of High Quality

SALFORD UNIVERSITY / BAE SYSTEMS / CCI

Corporate Training Initiative

PROJECT MANAGEMENT AND RETHINKING CONSTRUCTION

MASTERS PROGRAMME (MSc)

Summary of Case Study

The BAE Systems Corporate Training Initiative in Project Management and Rethinking Construction is collaborative development between BAE Systems, the Centre for Construction Innovation (CCI) and the School of Construction and Property Management at the University of Salford. It is designed to provide corporate training in the principles and practices of Rethinking Construction and to fit with existing BAE development programmes and provide a postgraduate qualification for the project management professionals in the BAE Systems CS & S Division. BAE set the objectives and requirements and delegate members of staff to register with the University of Salford on their programme leading to the award of ‘MSc in Project Management in Construction’. CCI provide bespoke workshops to support the learning.

Characteristics

<table>
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<tr>
<th>Partnership Approach</th>
<th>Clear Objectives</th>
<th>Appropriate Measures</th>
<th>Modularity</th>
<th>Industry Relevance</th>
<th>Best Practice</th>
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Interdisciplinary Team-Work

Other – please specify:

Basic Information

Name of Main Author(s): Mel Lees – Programme Leader for MSc in Project Management in Construction
Mark Hilton – Programme Manager, BAE Systems CS & S

Industrial/Professional Collaborator: BAE Systems CS & S

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Case Study Title: BAE Systems Corporate Training Initiative in Project Management and Rethinking Construction

Theme: Acquiring the principles of Rethinking Construction
## Teaching Context

<table>
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<tr>
<th>Subject Area Covered / Module Title</th>
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<td>• Module 1 – Procurement and Supply Chains - Strategy module that looks at the theories that underpin the <em>Rethinking Construction</em> agenda and challenges delegates to develop strategies for their own workplace.</td>
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<td>• Module 2 – Procurement Logistics – Implementation module that challenges delegates to put their strategies into action.</td>
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<td>• Module 3 – Project – Reflection module where delegates reflect on the theory, strategy and implementation and investigate a major issue in their workplace and derive a proposed solution.</td>
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| Keywords: | Project Management, Rethinking Construction |
| For how long has this project run?: | One year |
| Subject Area: | Building / Surveying / Engineering |

## Participants

| Number of Students: | 8 students have taken part |
| Number of Staff involved: | 2 members of staff involved |
| Level / Year: | P/G (Post-Graduate) |

## The Author(s)

| Please provide brief details of the Author(s) prior experience in this field: | • Mel Lees |
| Associate Director of the Centre for Construction Innovation and Programme Leader for the postgraduate programmes in Project Management and Rethinking Construction. |
# Written Statement

Please submit a brief description of your case study (500 words), using the headings provided to frame your submission:

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<th>a. Collaboration between education, industry &amp;/or professional bodies.</th>
<th>This programme brings together a major client organisation (BAE), a centre of excellence for Constructing Excellence (CCI), and a major provider of built environment education (SCPM). The resulting partnership was able to develop and present a focussed programme that addressed a specific developmental and organisational need within BAE. BAE CS&amp;S is a service unit within BAE that provides services to major infrastructure projects that support the delivery required as part of the parent company’s main contracts. Much of the work is engineering and/ or building based and many of the projects are overseas. The group of project managers work with their client groupings and take responsibility for delivering the infrastructure.</th>
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<td>b. A measurable set of objectives for each partner in the collaboration.</td>
<td>The objective of BAE in entering into this partnership was to develop capability in their project management group to implement the principles that underpin the Rethinking Construction agenda.</td>
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| c. Identify subject, issue or theme in case study with wide appeal in the built environment. | The main issues addressed in the programme are:  
  - Introduction to strategic procurement management and supply chain management  
  - Relational strategies  
  - Strategic propositions  
  - Supplier appraisal, selection and development  
  - Managing performance in supply chains  
  - Partnering and trust  
  - Strategic and emergent issues in construction procurement  
  - Public private partnerships growth and development  
  - Public private partnership process  
  - Evaluation and appointment of consultants and contractors  
  - Driving procurement change through process design and continuous improvement  
  - Driving process change through process mapping and lean principles. |
| d. Describe the context, both within the educational provider and the industry partner. | The School of Construction and Property Management in the University of Salford is 5** rated for its research activity and has been particularly commended for its work in process management, partnering and trust. The School has a teaching strategy that leads to research-driven new developments and the MSc in Project Management in Construction is an example of this. CCI is a centre of excellence for Constructing Excellence and has a mission to act as a catalyst for business improvement. It has a wide range of activities from workshops to major conferences and has an increasing portfolio of corporate training programmes. BAE is a forward looking and innovative organisation and it recognised that there may be benefits to its operation in embracing new thinking and new ways of working. BAE has a strong staff development programme in partnership with Warwick University, however this programme deals with general management issues. In order to create the step-change in capability, a different solution was required and this led to the creation of the partnership with the University of Salford. |
| e. Describe the evaluation of the impact of the case study over time. | The evaluation of the programme is done in two ways – informal and formal. The informal evaluation is done through interaction between tutor and delegate. Formal evaluation is done in the modules through evaluative questionnaires that are completed by all delegates. At the end of the programme there will be an out-turn evaluation conducted with the management of BAE on the overall initiative and its performance against the objective. |
## Learning Methods & Resources

### Objectives / Learning Outcomes:

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<th>Module</th>
<th>Objectives / Learning Outcomes</th>
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| **Procurement and Supply Chains** | On successful completion a student will have...  
...acquired an appropriate knowledge and understanding of procurement and supply chains.  
On successful completion of the module a student will be able to...  
...plan the management of supply chains  
...critically evaluate alternative types relationships in the supply chain  
...critically examine alternative procurement strategies for achieving business objectives  
...develop strategies for partnering  
...generate trust in a variety of situations |
| **Procurement Logistics**       | On successful completion a student will have...  
...acquired an appropriate knowledge and understanding of procurement logistics.  
On successful completion of the module a student will be able to...  
...implement procurement strategies for constructions and professional services  
...critically evaluate alternative procurement systems  
...design procurement plans for a variety of situations  
...investigate problems and develop solutions |
| **Project**                     | On successful completion of the module a student will have...  
...acquired an appropriate knowledge and understanding of the research process.  
On successful completion of the module a student will be able to...  
...undertake research projects in project management  
...apply various data collection techniques  
...evaluate alternative research techniques  
...present cogent arguments and conclusions  
...work under self direction on a significant piece of written work |

## Outputs:

All the delegates have completed other programmes within BAE’s staff development programme. They are, therefore, admitted to the MSc programme with 90 credits (through an APL procedure). On successful completion of the three modules outlined above, delegates will be awarded an MSc in Project Management in Construction form the University of Salford.

## Teaching Method(s):

A brief description of what you actually did. What sort of activities & interaction occurred?

The MSc programme in Project Management in Construction is a part-time, distance-learning, programme that utilises an e-learning approach. More information is available on the programme website at [www.scpm.salford.ac.uk/pm](http://www.scpm.salford.ac.uk/pm)

In the BAE partnership, this programme was supplemented with workshops for each of the modules. Typically, each workshop lasted three days and provided an opportunity for focussed study around the main module topics and group activities. Specialist speakers were organised for the workshops together with academic tutors.
### Assessment Procedures:

*brief description of any assessment methods used.*

Each module is assessed using a single project. The philosophy behind the assessment is given in the following excerpt from the programme handbook:

> The philosophy behind the assessment regime is that it is an integral part of the education process and one of the principal drivers to learning. Assessment follows the same approach as the learning materials in being innovative and related to the student’s workplace and/or profession. In all assessment activities, students are encouraged to apply what they have learnt to their own (project or business) organisation. The assessment will be on the basis of the extent to which a student has been able to apply subject material to gain new insight and create or envisage the start of new innovations within the organisation or profession.

It is the intention of the programme team that as much flexibility should be allowed within the specification of a project to allow students to negotiate a project brief that meets the academic requirements of the programme. These negotiations should take the form of a discussion between the student, Module Tutor and, where appropriate, the student’s employer.

Although the programme is presented as a series of discrete modules, for students taking the whole course, there is the opportunity for assessed work on a number of modules to be combined into a major coherent piece of work to give greater overall benefit to the student.

### Support requirements:

- For you and/or the students.
- Funding/costs.
- Did you or the participants need/get technical support?

BAE were responsible for the fees for the programme and the costs associated with running the workshops.

### ‘Good Practice’ Tips

**Further advice and pointers - incl. enablers / barriers / proposals for improvement.**

The final evaluation of this project has yet to be completed; however, it is already clear that the delegates have greatly enjoyed the opportunity to engage directly with tutors through the workshops. Having a schedule for the workshops has provided a structure and focus for their studies.

**How can other staff or partners reproduce this technique / method?**

Enquiries are welcomed from organisation wishing to work with the University of Salford and the Centre for Construction Innovation. All enquiries should be directed to Mel Lees on 0161 295 3893 or by email m.a.lees@salford.ac.uk.