Summary of Case Study

As a result of the success of the TIME IT project, the third year architecture students at Leeds Metropolitan University now take part in the Built Environment “Inter-professional Studies” module. Students work on a ‘real’ project in inter-disciplinary teams which allows them to experience the approach and work of students from other disciplines. In 2002/3 the project was for an interchange for Leeds Supertram where development proposals considered design, planning and funding issues and presentations were made to a panel consisting of Leeds City Council and Supertram. This module reflects an interdisciplinary ethos that runs within the undergraduate programmes at LMU contained within one module at each level. These increase in complexity and culminate in the challenges provided by this module. The case study gives a candid account of experiences in the running of this module.

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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<td>Interdisciplinary Team-Work</td>
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<td>Other – please specify:</td>
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Basic Information

Name of Main Author(s): Lindsay Smales, Built Environment
Jaki Howes, Art Architecture & Design

Industrial/Professional Collaborator: The Shay Stadium Trust, Pennine 2000 & 4 contractors

Department: Schools of Built Environment & Art, Architecture & Design

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Contact Telephone Number: 0113 283 2600 Ext 4093, 0113 283 1714 direct

Case Study Title: Inter-professional Studies

Theme: Team work on design problems
### Teaching Context

<table>
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<tr>
<th>Subject Area Covered / Module Title</th>
<th>Design, planning, cost, time, construction programme, presentation “Inter-professional Studies”</th>
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<tr>
<td>Keywords:</td>
<td>Interdisciplinary working, collaboration, communication, frustration, fun</td>
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<td>For how long has this project run?</td>
<td>6 (three with architects)</td>
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<tr>
<td>Subject Area:</td>
<td>Architecture, Architectural Technology, Building Surveying, Civil &amp; Structural Engineering, Construction Management, Quantity Surveying and Urban &amp; Rural Planning.</td>
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### Participants

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<th>Number of Students:</th>
<th>124 (this year)</th>
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<td>Number of Staff involved:</td>
<td>5</td>
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<td>Level / Year:</td>
<td>U/G</td>
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### The Author(s)

- **Lindsay Smales** (Planner) has run the BE Inter-professional studies module for six years.
- **Jaki Howes** (Architect) ran TIME IT from 1997 to 2001 [see supplementary information].

### 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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<tr>
<th>a. Collaboration between education, industry &amp;/or professional bodies.</th>
<th>Collaboration is not difficult. If students work on real projects they tend to ‘think outside the box’ and generate ‘free’ ideas for industry.</th>
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<tr>
<td>b. A measurable set of objectives for each partner in the collaboration.</td>
<td>This year 124 students will work on proposals for redevelopment of the Shay, home of Halifax Town Football Club and Rugby League Club. There is considerable potential for housing and leisure facilities. There is a real client and four potential contractors. Lindsay is on the board of Pennine 2000 (who have a Constructing Excellence Demo project). Pennine 2000 will act as housing client.</td>
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<tr>
<td>c. Identify subject, issue or theme in case study with wide appeal in the built environment.</td>
<td>Interdisciplinary working mirrors more closely what happens in professional practice on real projects of a complex nature. Of the 124 students - 40 are architects who will be in Rome for the first two weeks of the project and will return to a brief prepared by the other group members. There will be ten teams each with four architects. (Might be 20 teams with 2 architects) Students will work on this project on Friday afternoons for 15 weeks (architects 10).</td>
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<tr>
<td>d. Describe the context, both within the educational provider and the industry partner.</td>
<td>Where possible students will be encouraged to work as an interdisciplinary group and not, necessarily, in their own discipline. Staff will run surgeries in their own disciplines. There will be several site visits. Clients and contractors will judge the final presentation. Students are expected to produce drawings/videos/physical models/CAD models sufficient to explain the scheme; cost plans, site programme and brochure.</td>
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<td>e. Describe the evaluation of the impact of the case study over time.</td>
<td>It is difficult to evaluate the process objectively as there are hundreds of variables. However, there are student questionnaires and module leader reports.</td>
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For further information contact Aled Williams, email: a.w.williams@salford.ac.uk; tel: 0161 295 5944
### Learning Methods & Resources

| Objectives / Learning Outcomes: | • Students work on a ‘real’ project in inter-disciplinary teams with a common theme bringing the various disciplines together. This allows them to develop a greater appreciation of the approach and work of students from other disciplines.  
• A complex project based simulation, often without complete information, provides a means where students have the opportunity to develop and improve their communication skills within a collaborative context.  
• Experiential learning is fun and these ‘live’ projects provide a medium where students can ‘learn by doing’.  
• Economy of means  
• Students reflect individually on the set of attributes and skills that have been developed during the project. |
|---|---|
| Outputs: | • Students are expected to reflect on the skills developed within their interdisciplinary team working and on their role within the project (75%).  
• Summative group presentation of project findings (25%) |
| Teaching Method(s):  
A brief description of what you actually did. What sort of activities & interaction occurred? | • Project briefing sessions  
• Workshops  
• Inter-disciplinary group working within a real world project based context (i.e. ‘learning by doing’). Hopefully this increases student motivation and deepens their learning.  
• Self-directed learning  
• Summative presentation |
| Assessment Procedures:  
A brief description of any assessment methods used. | See ‘outputs’.  
The assessment closely mirrors the ‘real world’ where students are working in interdisciplinary teams. A variety of transferable skills are developed through interdisciplinary team-working which involves negotiation, teamwork dynamics, communication and collaboration skills.  
Summative presentations are made to both academics and real world clients/contractors involved in the project. |
| Support requirements:  
For you and/or the students.  
Funding/costs.  
Did you or the participants need/get technical support? | We tried to get funding to measure the outputs of the TIME IT project. As the students were self-selected it would have been interesting to see whether they did better in professional practice. Difficult now everyone does Inter-professional Studies. |
### ‘Good Practice’ Tips

| Further advice and pointers - incl. enablers / barriers / proposals for improvement. | Must have designers and builders because they use the same terms differently. Previous industry reports have identified the gap between ‘design’ and ‘production’ within the construction industry (i.e. Latham & Egan).  
There was 100% attendance and it was fun. In 2003 the quality of the presentation improved but many students ‘hated it’ – there is a problem with individual student contributions when assessed and marked as a group. Any project should provide clear ground rules for students from the initial project briefing.  
Construction managers and Civils have dropped out for this year (2004) which decreases the richness of the student interdisciplinary experience. Thus, to get all courses ‘on-board’ there needs to be a more explicit thread and contribution for all disciplines to make towards a successful project outcome. Student motivation decreases when they can’t see a discipline focus.  
Biggest problem … narrow-minded staff.  
Organisation and administration of projects of this nature take a significant amount of time and co-ordination which do not reflect staff workload allowance. |
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<td>How can other staff or partners reproduce this technique / method?</td>
<td>With difficulty - Leeds Met is the only University with full range of courses. However, other Universities could ‘partner’ with other institutions although logistically this may prove difficult.</td>
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### Supplementary Information

| Any other factors which you wish to be considered? | Supplementary resources available on interdisciplinary modules contained within the Schools of Built Environment & Art, Architecture & Design - Leeds Metropolitan University:  
- Best Practice in Building Network [http://www.cebe.ltsn.ac.uk/BPBN/index.htm](http://www.cebe.ltsn.ac.uk/BPBN/index.htm)  
  - “Professional development through inter-disciplinary and inter-professional learning activities”, David Pearce  
  - “Teamwork In Multidisciplinary Environments (using) I.T. - The ‘Time IT’ module”, David Pearce  
Previous related initiatives at LMU (no longer running):  
- TIME IT Project  
Originated in 1998, the Leeds Metropolitan University ‘TIME IT Project’ brought together students from architecture, civil engineering, construction management and quantity surveying. Working together one day a week for five weeks on reality-based projects, from a pedestrian bridge to a brown field site, each team had to present the scheme, a cost plan, a design and construction schedule and structural and environmental calculations. Students were asked to use IT as much as possible, to forget traditional professional roles and to record and evaluate the process. The reality projects were devised by external advisers including architects, project managers and contractors. In 2000 ‘TIME-IT’ became an M4I demonstration project. |

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