ABSTRACT
This paper discusses 'TLC', a collaborative design project undertaken by 'Glass Box' a design collective consisting of a group of lecturers from the School of Design and Media Arts, Napier University, and the resultant impact on their research and teaching philosophy.

The practical research project proposed an educational model for creating successful dialogue and interaction between consultancy, creative practice and academic research. This paper presents a case for exhibiting design process, proposes techniques for encouraging student and professional critique of staff research, and describes the process undertaken by the staff team to produce a design collection for display at Designers Block, a major curated exhibition held during the international London Design Festival.

This paper aims to continue this dissemination and reveal the educational benefits of such a project, demonstrating how teaching through case study is made more vibrant and effective through personal experience.

Keywords: practice into research, case study, reflective practice, curriculum development.

1 INTRODUCTION - BRIEF
“Reflective practice is not a form of silent meditation on work. In reflective practice, reflection takes the form of bringing unconscious patterns and tacit understanding to conscious understanding through articulation”. Ken Friedman [1]

The character of research undertaken by the School of Design and Media (DaMA) is shaped by its commitment to meet the needs of the creative industries and to enhance design education by developing modes of critical enquiry appropriate to the creative arts and design in Scotland [2]. The Table, Light, Chair (TLC) research project built on this agenda and enabled a group of lecturers to found a design collective entitled ‘Glass Box’ with the aim of critically re-engaging with practical studio tuition and curriculum development while addressing recent government initiatives. [3]

In January 2005, Glass Box were set a generic brief and invited to produce a range of design concepts where they could re-interpret the ‘holy trinity’ of design - the table, light, and chair (TLC). A triad of Iconic objects redolent in meaning, memory and tradition, and considered ripe for aesthetic, cultural and technical experimentation. The research programme was subject to a rolling peer review involving Glass Box members and undergraduate students, and externally moderated by critiques from industry
practitioners and academic colleagues from the Departments of Furniture, Product and Interior Design at Edinburgh College of Art.

Its purpose was to give a focus to its members efforts to contribute to the schools RAE rating as a device to engage staff with research through practice, act as staff development and crucially make explicit their tacit design knowledge and experience to themselves, each other and the student body. The experiences of the group would, where appropriate, be fed back into teaching practice. The project, table, light, chair, was set to allow the members of Glass Box to engage with, and make personal statements regarding the design of these iconic artifacts, presenting a timely critical re-evaluation of familiar forms and typologies designed with tender loving care. An identified objective was to produce a collection of artifacts, which would then be exhibited at Designers Block, as part of the London Design Festival [4].

Designers Block curate and produce international shows alongside major design events and trade shows, achieving significant media profile and industry acclaim. They exhibit work in transitional architectural spaces, and aim to offer a distinct philosophical and aesthetic alternative to traditional trade events.

The transparent process would enable staff to engage in reflective practice, and help staff and student alike to see the impact of subject specialism and knowledge on the design of a range of artifacts.

2 PROCESS

Although some members of the design staff are involved in private design consultancy, the outcomes of such work are inevitably commercially sensitive and not widely shared or discussed. In contrast the design development and production undertaken during the TLC project was totally transparent, with students actively encouraged to observe the projects progression. This helped reinforce the principles of the design process underpinning design teaching at Napier: research, modelling, testing, evaluation, and prototyping. [5]

The project aimed to act as a valuable teaching tool and help staff enhance respect from the student cohort and enable staff to evidence that they 'practice what they preach'. The project was also intended to create a greater staff empathy and provided a reminder of the pressures students experience at degree shows and other deadlines. Peer review would be central to the process, and as such Glass Box members periodically presented their work to students and staff through informal critiques.

If successful design also requires explanatory principles, models and paradigms, perhaps successful design teaching requires the same. As the work developed within the universities facilities, students were able to witness progress of projects as active case studies. Design is first of all a process. The verb ‘design’ describes a process of thought and planning. This process is traditionally taught as serial activity with feedback loops. Critical peer and design reviews are planned into the activity to facilitate evaluation and corrective action. Undergraduate design students can often perceive this as an artificial academic device, merely viewing the design process as a tick box activity. The project aimed to show how a staff team who came from different design backgrounds and positions could interpret this model.
A recurring theme of student feedback is the problem of contradictory opinions offered by staff on project work. Although this is an issue, it is a natural outcome of the differing experiences, process and embedded or tacit knowledge of staff. Through the transparency of proceedings students were, for perhaps the first time, able to appreciate how the rigid design process, as taught, can in fact be interpreted as an individual response without affecting viable outcomes. What follows is a description of four of the finished artifacts as exhibited, with a short biography of the designer responsible illustrating their creative background. This is set into context by a short professional critique of their work undertaken for the exhibition catalogue.

3 PRODUCTS

“Glass Box reveal their designs and thoughts, the nature of their diverse experiences, the complexities of their objects, and the personalities involved in their conception and production. Their reflections and propositions provide a refreshing and provocative approach to design, demonstrating a rich plurality of approaches.” Exhibition Catalogue Foreword [6]

![Figure 1 - Glass Box Products](image)

**Figure 1 - Glass Box Products**

*Top Left - Tutor A, Top Right - Tutor B, Bottom Right - Tutor C, Bottom Left - Tutor D*

Tutor A
Position - BDes Programme Leader, Taught for 13 years
Academic Background – BA (Hons) Furniture, Teaching Fellow
Design Background – Furniture Designer Maker
Primary Areas of Academic Responsibility - Senior Year Studio Tutor
The creative outputs of the staff showed a strong correlation with their academic responsibilities.

Tutor A undertook a project that reconnected him with his previous role as a designer maker, and has directly led to this studio agenda being introduced into the undergraduate program. Tutor B’s interpretation of the brief demonstrated the challenge of sticking to a theme when creative inspiration takes one into valid area of personal interest in critical design.

In the case of Tutor C their design work referenced their research into designers as celebrities and a major design publication he was authoring at the time. [7] Tutor D was able to demonstrate the validity of design for manufacture, and through liaising with
manufacturers on the project establish a network of industrial partners that students could access for advice, prototyping and costing.

The staff and student body were reinvigorated by the experience, and used terms such as respect, satisfaction, buzz, humility, and enthusiasm in reflective feedback sessions, conversations between staff and students, and formal staff reviews.

“Glass Box gave us liberty and freedom to engage with form, process and materials. Design is as much making as it is process. It encouraged respect and galvanised the teaching team. It leads to students identifying staff with design practice as well as the education process. It also confirmed the conviction that students need to make models, draw and have a hands on attitude to materials and shape manipulation.” Tutor A [8]

Within DaMA it is hoped and expected that personal knowledge gained in relation to the major project that year 4 honours students complete, demonstrates an in depth understanding of the subject and competence in practice. This serves to break down the master/pupil relationship, encouraging a peer relationship between staff and pupils. Post rationalisation of the TLC project process reveals how closely it related to the major projects undertaken by final year students; in that a self generated brief or response needs to be devised and an artifact or prototype manufactured to the deadline of an exhibition and critical examination. As the project progressed the experience mirrored the pressures, strains and uncertainties that the major project puts upon students. The outcome of this has lead to a more empathetic approach when dealing with students.

5 CONCLUSION - FUTURE ITERATIONS
The value of professional educators undertaking project work and presenting this back to design and engineering students as active case studies cannot be overstated, shifting the emphasis from teacher-centred research to more student-focused activities. [9] Feedback pre and post Designers Block from Glass Box contributors spoke of enthusiasm and commitment for their projects being translated into teaching practice. Compare this with the dry and remote cases studies commonly presented to students from such books as 'Design Secrets' [9]. These live case studies were presented to students demonstrating critical process of model making and testing, aspects of design for manufacture, decision making, materials selection, and manufacturing process were demonstrated.

As the research informed the teaching, so teaching informed the practice creating a symbiotic feedback loop and enriching both. The members of the Glass Box collective took the notion of collaboration seriously. This was evidenced through their creative interaction with their fellow designers, via the relationships struck up with manufacturers, users and clients during the project, and concluding with the collaborative involvement of the readers of their catalogue and the many visitors to the exhibition.

Since the completion of the first stage of the project Glass Box have been invited to display their work at The Lighthouse - Scotland's Centre for Architecture, Design and the City [11] and created their own online gallery [12]. Future plans include a new interdisciplinary project entitled ‘Floor Wall Ceiling’ which aims to enable the
engagement of a broader range DaMA design disciplines, and a major collaborative pedagogical research project between DaMA and Edinburgh College of Art.

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REFERENCES
[8] Interview of Ian Lambert (Lecturer A) with Authors 10/12/2005.

CONTACT INFORMATION
Will Titley
Lecturer in Design,
School of Design and Media Arts,
Napier University,
Colinton Road,
Edinburgh EH10 1DT
T: +44 (0)131 455 2678
E: w.titley@napier.ac.uk

Alex Milton
Head of Furniture, Product and Interior Design
Edinburgh College of Art,
Lauriston Place,
Edinburgh EH3 9DF
T: +44 (0)131 221 6132
E: a.milton@eca.ac.uk
URL: www.alexmilton.co.uk