

Transition Project: Reflections on design education in practice

Eight companies, forty undergraduate design students, six weeks – with the aim of exploring and making sense of eleven diverse and challenging industry design briefs.

The Product Design and Technology (PDT) teaching team at the University of Limerick have developed an immersive, novel learning experience. This offers final year design students a unique opportunity to develop real world professional design skills while demonstrating to collaborating companies (those that design is not a core feature of) the value design can add to their business. Collaborating company types, of which half were design led, included: medical device, product experience, design consultancy, design for manufacture, safety products, refrigeration, and new product development.

Industry partners were paired with a team of fourth year PDT students, to address a real-world project brief over an intensive six week period. The project, referred to as the Transition Project, challenged students, in teams of three or four, to explore, in great depth, an area of interest for the partner company such as wearable technologies, medical devices, human computer interactions, sports equipment, protective clothing and automotive styling. All projects had a user centred design approach. The following article is a reflection on this Transition Project, introduced to the PDT four year degree programme for the first time in 2014. Due to intellectual property and company privacy, project details will not be disclosed in this article.

The Rationale

The first graduates of the PDT course emerged in 2007. Since then, the fourth and final year consisted of one major design project that spanned both semesters and ran parallel with two other modules in each semester. Deficiencies were observed in both the transference of design skills from third year to fourth year, and student progression from education and industry. As a result, the Transition Project was introduced to the PDT course for three principal reasons:

- To transition students through various phases of their design education.
- To create new and fortify existing links with industry.
- To promote and nurture design in Irish based companies.

The phases of design education that the Transition Project enables transition through are; third year to the final year design project (fourth year), and from fourth year into professional employment. The challenge for students returning to college following a nine month work placement (Co-Op) or Erasmus (study abroad) experience is to revive dormant design skills and design thinking, which can be underutilised during this period. The Transition Project aims to quickly revive those skills in a supportive team environment prior to the individual final year design project.

The transition from undergraduate work to professional employment can be as challenging. Bryan Lawson (2006) suggests in *How Designers Think* that design education has become too removed from industry. Industry based projects are run in PDT during second and third year, however, it has been observed by PDT staff that students are somewhat cocooned by the large numbers of students participating and therefore, not fully exposed to professional practices. To develop professional competencies in students, it was vital that the Transition Project engaged with Industry. The project required each team of students to project manage, work with professionals, gauge and manage client expectations, and produce work of a professional standard.

Collaborating with industry does not, of course, only benefit design education. It introduces new ways of thinking to companies, and can offer multiple design solutions. The invaluable connection created between education and industry not only

References

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- IBEC Conference Dublin (2015) Better Business by Design
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- Lawson, B. (2006) *How Designers Think*, The design process demystified. Architectural Press
- Tharp, B. (2002) *Value: Conceptions in Industrial Design and Anthropology*. IDSA

inculcates in the design student the skills necessary for a professional design career, but nurtures the nascent Irish design industry (Kiernan & Ledwith 2014). When Industry collaborates with design education, it allows the potential of design to be experienced without prohibitive costs.

Design briefs

Companies were approached and asked to develop challenging briefs, in areas of strategic importance, or in some cases, simply in areas of interest. The eleven briefs were diverse, exploring themes ranging from next generation devices, to future social interactions, to rapid prototyping. The goal was to make sense of the fuzzy front end. The diversity of briefs conforms with research suggesting that design needs to broaden its perspective, (Design Council 2007) and therefore aims to expand student potential in terms of future employment opportunities.

Design briefs were developed through discussion with PDT staff and collaborating companies. Each brief included the following criteria:

- Defined brief that requires exploration of a subject of interest (to the company)
- A realistic output within 6 weeks – prototypes, design stories, etc. (outputs were agreed following discussions between PDT staff and industry partners)
- User focused

Project outputs

On the final week of the project, student teams presented the final project outcomes to their respective industry partner. Design stories and concept directions were communicated through a variety of methods: visuals (stills/video), prototypes (working/form), and stories of future interactions (roleplaying/video).

A user centred design approach was used in all cases. Research phases included ethnographic research methods such as stakeholder interviews, user observations and immersive 'day in the life' techniques. Role-playing and user prototype testing were just some of the user centred methods used during design development. Improved user experience was a feature of each design output.

The student learning outcomes matched the PDT tutor expectation, which included a very positive student experience. The

sense of confidence and accomplishment in the class following the Transition Project was noticeable. Aside from pure design skills project planning, decision making, and time management skills were put into practice. The magnitude of real clients and real deadlines provided extra impetus for the students. The challenging design briefs helped cultivate exploration and iteration in the students' design processes.

To ensure appropriate management and equal distribution of work, teams imposed a management structure. Each team conducted weekly meetings where actions were noted. The team approach alongside weekly class situation reports (SITREPS) ensured a supportive atmosphere in the design studio. Organisation of the project schedule, liaising with clients, and delivering high quality outputs helps equip the team with the vital project management skills necessary for a professional design career. Feedback from the companies was very positive, verified by the fact that nearly all would collaborate again (dependant on suitability of projects available to companies). Feedback was gathered through a questionnaire emailed to participants following the project. Factors such as "fresh perspectives", "added new dimensions", "validated design directions", and "lack of time and resources", were just some of the benefits of the Transition Project, as reported by companies in the questionnaire. Within one company the project supported "building momentum" in becoming more design led.

Design value

How does one capture the value of such a project to a company? As noted in the previously, company feedback was positive. Through working with student teams and observing their process, the fuzzy front end may be somewhat demystified following the project. In a few cases the student outputs will lead to future product development. Is there value, however, that is not being or is unable to be quantified? The development of a prototype to final product may have a visible path, but the capturing of conversation and resultant design direction inspired by those conversations is far more difficult. It was quite evident during student presentations, the energy of dialogue and new conversations arising directly from interaction with student outcomes.

As Tharp (2002) points out, value is a



slippery topic. While the projects may not have yielded final designs, the work produced allowed the companies to formulate judgements on usability issues, feasibility, cost, manufacturability, aesthetic, components etc. The outcomes proposed, although not nearly final solutions, bring illumination through their physical or visual embodiments that allow further conversation within the company. The recent IBEC Conference (2015) in Dublin, where the theme was 'better business by design', suggests that design is fundamental to the success of Irish companies. Design led companies such as IDEO understand this value. Future Transition Project collaborations will aim to capture and confirm this value.