

FINDING DESIGN DIRECTION ON THE JOURNEY FROM MODE A TO B

Derek McGarry, National College of Art and Design, Ireland

The purpose of my research was to evaluate the taught Masters (mode B) approach in design education by reviewing a number of multidisciplinary programmes. My survey illuminates a variety of contemporary design directions that heavily influence the manner in which students are taught. One overriding criteria which connects each programme is that they all attempt to function in the 'real world' making significant links to the design industry. Therefore, my work highlights contemporary design issues within this context and discusses their impact on the postgraduate curriculum.

Design Interaction at the Royal College of Art (RCA), FunLab, IM (industrial, interior and identity design), and Man and Humanities Masters at the Design Academy in the Netherlands provided four individual, but philosophically linked, two year Masters courses for my research. The Product Design and the Design Management Masters at the University of Central England form another connected strand to my investigation. Through visits to each institution, I was able to meet with staff and students to discuss and review the various multidisciplinary taught Masters models.

Part One:

What is Design Interaction?

Design Interaction investigates issues such as design experience, design sustainability, and new technology. It is a programme that evolved from computer related studies in 1990 to one that now researches design in context. Current research themes include scenario creation, lifestyle design, as well as social inclusion/ exclusion. The objective of the course is to engage with conceptual and contextual inquiry in order to build the design skills necessary for the future designer. Much of the created work is presented in the form of two dimensional concept illustrations. The course attracts multidisciplinary, multicultural students with an international profile.

What is FunLab?

Funlab was established in 2002 and teaches design scenario and ritual creation at the expense of product. Funlab reflects an increasing self-conscious and socially aware design world. Funlab is also about design in context where the future of design will focus on human interaction with design. Now the emotional needs of the user will take precedent over the traditional value of aesthetics and function. Funlab sets out to establish a new design skills base that centres on sociological and psychological requirements where designers become choreographers and storytellers. The work created is conceptual design in both two and three-dimensional form. This course also attracts international multidisciplinary, multicultural students.

What is IM Masters (industrial, interior and identity design)?

The IM masters established in 2002 enables the future designer not only to design the product but also the context in which it exists. The course is lead by Gijs Bakker and Renny Ramakers of Droog Design. The course ethos defines design as something beyond the insatiable development of new product. Today, social and philosophical change in the world offers new opportunities for

design. The course aims to research, develop, and establish a new role for the designer in the 21st century. Design sustainability, in addition to recycled design and materials, features heavily in the work that is created by the multidisciplinary, multicultural international students.

What is Man and Humanities Masters?

The Man and Humanities programme was established in 2002 addresses changes in lifestyle and legislation in society. Students are asked to explore social and ethical issues through reflective practice to generate new design consideration. Humanitarianism, ethics and design sustainability are central to this investigation. Contextual inquiry introduces a raft of ideologies and directions beyond the recognised geography of design. This emphasis departs from the traditional understanding of product and aesthetics attempting to arrive at more philosophical design. Design as social commentary, or social conscience, is key to this multidisciplinary, multicultural line of inquiry.

Curriculum Infrastructure

The framework supporting the curriculum clearly prioritises research methods and technical development. Rapid skill acquisition in the areas of contextual and conceptual inquiry is paramount. The academic staff are high profile practitioners with a 'real world' attitude to design.

Each of these courses attracts diverse multidisciplinary art and design students with an international background. With this cultural diversity, a variety of systems of support are necessary to assist and encourage learning. All classes are conducted in English. A well-structured lecture series introduces significant and relevant material, which is supplemented by additional individual and team assignments. The move towards de-individualism is deliberate to mirror the professional world beyond the institution. Through collaboration with industry and social partners, several team based 'live' projects further enhance the learning experience.

Design methods classes are a prerequisite on all postgraduate courses in the United Kingdom. However, all of these programmes expose the student to a variety of research techniques that enable more rigorous investigation of core issues. This exercise is vital in developing the necessary research ability to fully question the exploration of design work.

Computer aided design and presentation skills are now a design industry requirement and are reflected in the curriculum and facilities. Well equipped studios enable computer literacy in a number of interesting software programmes. Electronics and software development play a more significant role on the Design Interaction curriculum at the RCA. However, it is almost impossible to provide fully equipped workshop facilities for individual specialist disciplines within each multidisciplinary student group. This factor considerably impacts object making and the type of finished design work produced by the programmes I investigated. Just how to address this issue is a complex problem for multidisciplinary course development.

Learning Outcomes

The diverse issues that effect the direction of contemporary design create a complex position for research active academics. When you focus on design experience, design sustainability, as well as humanitarianism, the traditional value of form, function, and craftsmanship can somehow become less relevant. This observation was most evident in the graduate exhibition at the RCA

where design illustration in the form of rendering was predominantly used at the expense of three-dimensional work.

Today, design seems more interested in exploring new terrain. Social science, behavioural studies, human geography, as well as anthropology and ethnography enlighten and influence design and consequently the structure of the design curriculum. Institutions like the Design Academy and the RCA place a very high value in using specialist academics and professional practitioners from outside of the design disciplines to help expand the traditional design boundaries. However, much of this research is apparently divorced from the required commercial reality faced by many in design manufacturing.

Ostensibly, academics are now investigating design that moves away from product to something that offers more meaning, connection, and longevity. Much of this work is presented as concept illustration that often requires breakthroughs in future technology to achieve reality. However, the skill base acquired through such experimentation and exploration is highly regarded by the design industry. Graduating students presented their work with remarkable conceptual fluency and professionalism. Many of the designers I interviewed now have full-time employment in industry. Therefore, it appears conceptual design is a productive research skill base essential to tomorrow's commercial application. This situation is not only highly significant to curriculum development but also encouraging as we strive for design innovation.

Simultaneously, the role of socially conscious design activation is being explored through collaborative projects with aid agencies. Design Academy work for UNICEF is a good example of how design can highlight difficult human conflict and issues such as child abuse and social exclusion.

The ability of the designer to activate or engage the viewer/user is the ultimate measure of success or failure in the arena of design scenario creation. By the time the student has completed their postgraduate studies, they should have a comprehensive contemporary design awareness. They will have the ability to work individually or as part of a multidisciplinary team. Their design vocabulary will include an arsenal of skills acquired by researching subject matter, methods and techniques beyond the scope of traditional design.

The danger for the multidisciplinary conceptual/contextual designer is that they may have achieved a general education at the expense of specialist single discipline training. By this I mean that the degree work presented may often lack the craftsmanship and material consideration that would be associated with and expected of single discipline (mode A) scholars. Given the core value system employed by these programmes this situation is not surprising or perhaps even relevant. Self-directed masters courses can often not achieve the same standard of rigorous research as taught programmes. Mode-A courses can often provide not much more than a valuable studio space for continuing work in splendid isolation. However, I would suggest a better balance between cultural awareness, conceptual development, and object making ability would be more beneficial for taught multidisciplinary design courses.

Part Two:

The Product Design and Design Management Masters are twelve-month programmes at the University of Central England (UCE) are perhaps less concerned with social and ethical design considerations and more interested in the commercial design world.

What is the Product Design Masters?

The Product Design Masters course is constructed for students interested in product and want to achieve a better understanding of design methodology. Product evolution and teamwork are a priority at the expense of individualism. The programme is multidisciplinary attracting international students from diverse backgrounds like industrial design, ceramics, glass, and furniture design. Despite the multidisciplinary student cohort, UCE see the course as specifically single discipline. Students are taught the prerequisite design language and skills to explore and experiment using their specialist background to meet the course requirements. A cultural and commercial design context exists for all design inquiry, which in turn influences the traditional design values of form and function.

What is the Design Management Masters?

The Design Management Masters caters to students interested in the specific nature of the design industry who want to acquire key skills to gain employment. Attracting an international multidisciplinary cross section of students, the course work is explored in both team and individually based assignments specifically geared towards personal specialisation. Design research is in the context of integration with market policy, technology, and organisational development. UCE believe that design management is the ability to link a range of design organisational activities through strategic planning. Students develop a skill base and knowledge appropriate to a variety of industries and art organisations that use or contribute to art and design.

Curriculum Infrastructure

Both the Product Design and Design Management Masters courses are closely linked. A common series of prerequisite lectures are introduced during the first semester. Sequential lectures and related research assignments introduce the essential components and skills of each discipline. Leading academics and design professionals work with the students providing a 'real world' research application. Students work individually and in teams as part of this industrial organisation and design policy research and development structure. Ultimately, students achieve a greater level of understanding of the professional world, as well as a comprehensive awareness of academic research. According to the course directors, students learn to become design specialist generalists able to more easily adapt and integrate within a rapidly changing industry than their single discipline peers.

UCE believe written research is an essential exercise in developing deeper knowledge. The dissertation component of the Design Management course is regarded as a significant asset in this mode B approach.

However, it is in industry where practice takes precedent over theory. Well-established research models are used as practical methodologies in knowledge acquisition. Knowledge transfer partnerships (KTP's) are an instrumental mechanism through which specific research information is achieved that not only benefits the student but also the industry investigated. Thoroughly

examining the design manufacturing industry from every angle is the function of this mandatory policy audit module for both courses. The KTP reflective learning experience allows the student to extensively investigate and understand the design learning history, as well as design organisation and company policy. This process makes the implicit explicit. The fact that many of the Design Management students study part-time while working in specific design industries, over eighteen months through an innovative learning contract, underlines the practical value of this taught module. UCE also employ a staff member specifically to help develop KTP opportunities for their students.

Learning Outcomes

Both courses at UCE focus on developing comprehensive design understanding in a commercial and industrial context. This approach is holistic moving away from individualism towards multidisciplinary knowledge and skill acquisition. Reflective practice provides deeper knowledge through applied research. UCE foster analytical thinking by taking a non-linear approach. They achieve a balance between innovation and manufacturing viability. The students learn why and how things are made, as well as what factors influence design production. Therefore, a complete understanding of the design process is achieved through this mode B approach.

While the use of *3D Studio Max* and *Power Point* helped to generate tremendous design options in virtual reality, one apparent weakness in the product design course is the lack of three dimensional design objects. The exciting post-optimal product computer illustrations did dramatically push design boundaries. The fluency, immediacy and idea expansion achieved in design development with the computer tool is extremely appealing. However, like the first four multidisciplinary programmes researched, a better balance between the real and the implied needs to be struck to satisfy my traditionalist values. Perhaps, this situation is partly the result of the intensive nature of the twelve-month course and the need to rapidly move ideas. What would happen if the Product Design Masters were twenty-four months instead of just twelve?

Conclusion

A complete understanding of the design process, which enables the student to make a meaningful contribution to art and design, must be the true measure of all the taught mode-B multidisciplinary programmes. Academics must also be extremely aware that they are teaching students who seek employment in the design industry. Ultimately, this should also be the goal of self-directed mode-A programmes.

My research highlights two distinct approaches to design education. One direction explores social and ethical design interaction. The other path investigates design development, but also industrial manufacturing, organisation, and policy. Although there are times when ideology converges, a sliding scale of importance with regard to educational relevance and prerequisite subject matter exists in each of the programmes researched. At one end of the spectrum students experiment with design in the context of scenario creation, experience and humanitarianism. At the other end of the scale there is design in the context of commercial realism, research and development in manufacturing, and design industry survival. Both philosophies are valid, illustrating the complexity of design and design education where finding the appropriate direction to follow is not straightforward.

However, I would signpost a number of locations that must be explored to achieve considerable design awareness and understanding. Contextual design studies are an essential component in

any postgraduate research. Future designers will work in environments far beyond the familiar single discipline, individualistic, terrain they navigate today. Clearly, designers are now required to help interpret multiculturalism in an increasingly technological era. To be fully equipped for this responsibility, it is incumbent on educators, students, and the design industry to search for deeper knowledge and understanding through curriculum development and collaborative initiatives. From my reconnaissance, it is evident that multidisciplinary contextual examination and team design research assignments better prepare designers for an industry that requires multi-tasking abilities in a rapidly changing world. Therefore, contextual inquiry must be included on the design curriculum. In addition, modules in design research methods, conceptualism, and professional practice, including creative writing, should be provided to sustain the necessary holistic vision.

Knowledge transfer partnerships are an essential element in the professional training of students. It is imperative that our students directly gain design industry work experience. KTP's ensure that academia develop a curriculum that has relevance and futurity. Sustaining design innovation and knowledge acquisition through academic and industrial collaboration is mutually beneficial. Industry benefits in numerous ways through academic experimentation, technical development, and access to non-commercial lateral thinking. Universities can benefit by availing of industrial manufacturing technology that is often beyond the constraints of most academic facilities and budgets. Computer aided design and computer aided manufacturing are two good examples of highly expensive but crucial technical skill bases required by many design industries. Therefore, through design research and development programmes, well-structured KTP's can address deficiencies identified in both academic and industrial company profiles. They can also better position the academic institution for essential seed funding and investment.

My recommendations address research areas that circumnavigate both the academic and industrial design world creating deeper design knowledge. Postgraduate design education now requires a more encompassing but relevant approach that provides required design literacy. Contemporary designers must decipher, discern, and form opinion on issues that question their role and that of design in the twenty first century. Accordingly, design colleges must now look to disciplines beyond design. Anthropology, ethnography, and the social sciences offer new insight for reflective design practice. In addition, the strident progression of new technology and new materials significantly influences future design education. Mechanisms to embrace and pioneer change must be found.

Design education has always been about context but today this agenda identifies one that is increasingly more orientated towards people. Therefore, our design education itinerary should include both social and ethical provision and reflect on the wider implications for industry. Design Experience should be investigated by exploring design interaction and how design can be used to provide more meaning. Taught programmes, including multidisciplinary courses, are enormously influential because they create the required topography to foster ideological perspective. Developing a reflective cross discipline research culture and learning organisation within the design faculty, that can interface with the design industry, should be seen as academically essential. However, you do not need to establish a multidisciplinary masters programme to achieve this dynamic, it should already exist.

As we search to find design direction on the journey from mode A to B, establishing a creative educational compass must now be seen as a priority for both design education and industry.