

## ENHANCING KNOWLEDGE ACQUISITION

Alan R CRISP, James DALE and Phillipa MARSH

The Nottingham Trent University

### ABSTRACT

This paper describes the results of the analysis undertaken against a novel curriculum delivery method designed by the authors to enhance the learning acumen of second year product design students. The data and results are derived from three criteria: academic results, attendance and student satisfaction. The authors practise design, through their parallel profession of lecturing, to a diverse range of students partaking of three courses of Product Design, namely BA Furniture and Product Design, BA Product Design and BSc Product Design all three at honours level. The courses aim to produce creative, practical and professional designers with exemplary communication skills and real world experience ready to further explore design through commerce, industry or commissioned work, sensitive to aesthetic values, ethical issues, socio-economic issues, and environmental considerations. The curriculum is continually developed to ensure that knowledge is gleaned by and through practise i.e. "Knowing (by) Designing". Over the last two academic years a new model of teaching has been developed integrating other design, art, media and musical disciplines to enable the teaching of design studies, this facilitates the transmitting and receiving of knowledge relative to design through eclectic media disciplines; in effect: 'inwards and outwards communication in designing, music and the arts'. This has led to the authors 'investigating ways in which the creative processes and activities develop the acquisition of knowledge'; which has led to a growing awareness of their own practise and continual growth of their own knowledge.

*Keywords: Enhancement, novel, knowledge, satisfaction, attendance*

### 1 INTRODUCTION

This new model has been developed through the delivery of a specific module namely; Design Studies 2, which is taken as a common module by all students, currently a cohort of 148; ranging in ability from a distinct bias towards art and decorative products [furniture] to a distinct bias towards numerical and technological design [BSc Product]. The familiarity with the subject that is being explored, developed and used to further students' designs is broken into two distinct areas, firstly, knowledge and understanding to include; the synthesis of theory and practise relative to design; recognition of design in a professional, critical, historical and contemporary context; the demonstration of an understanding of the visual and material culture of more than one geographical region in more than one chronological period and the ability to develop, advocate, defend and justify a personal viewpoint relative to the wide ranging issues in contemporary design. Secondly, skills, qualities and attributes to include, the application through research activities of a professional and responsible approach to design; the ability to synthesise through research and written activities and apply skills in planning, debates and evaluation; to be able to demonstrate through research, debate and written activities the ability to locate and evaluate evidence; from a wide range of primary and secondary sources (visual, oral and textual) and interpret it in relation to relevant issues and enquiries; to reflect critically on the design process through verbal, written and visual methods and media and to interact effectively with others i.e.: through collaboration, collective endeavour and negotiation in a multi-disciplinary context. The module is influenced by the acknowledgement that design as we teach it is a cultural activity and designers need a highly astute level of awareness of how this activity may influence and shape environments they will be working in and others live in. A driver of the module is to facilitate students to examine and question the culture and influence of design in the modern world; often by reviewing the past or analysing future predictions. They are encouraged to question their own thoughts and ideas as well of those of other designers; in so doing they develop the skill of critical thinking; the most useful asset to a designer. The overall aim is to raise the students' awareness of design principles,

cultural and philosophical topics and how these relate to design and their surrounding environment; thus allowing those to develop their own design principles, cultural and philosophical thoughts and ethical principles. Under-pinning these activities are three main themes; which are studied in a variety of ways, mainly however through critical thought and reflection following a series of films, which they watch and research facilitating reflective writing in a critical manner pertinent to two key texts. The themes are:

- The wider issues relative to design and designers;
- the process of design; reflecting on what design is and ways in which designers think;
- design in practice; how commercial and industrial design practice operates.

It is designed to continually challenge their preconceptions and ours pertinent to design and product in particular; seeking all to look further within society to gain understanding and knowledge. Through the lectures, the film series, a cultural week-long visit at the end of term two and seminars it becomes possible to examine and become more aware of historic and contemporary practice, emerging technologies, counter-culture and the internationalisation of design. This enables opportunities for debate, discussion and critically investigation of issues relating to design, art, music, theatre, film and eclectic media disciplines.

‘Why The Hell Am I Having to Watch a Bunch of Old Movies; When I Thought I’d Signed Up For a Product Design Course’? This became the standard question from the students of National qualification Framework 5 [Level 2 Design Studies: Film Programme] Product Design; BA, BSc and BA Furniture and Product Design. They continually asked at the start of the programme; Why Study Film? The answer the authors give is clear and concise and pertinent to design, all design i.e. context, observation and story-telling they all open the door to other media, other cultures, other times but more importantly understanding and expanding one’s knowledge.

## **2 CONTEXT**

Film continues to occupy an important role in society; it is viewed as both a populist entertainment medium and an important art form. Film is about humans for humans and their interaction with the world; it tells of historic times and contemporary times, film looks to the future and most importantly of all examines the human condition. The study of film is as important a signifier of contemporary issues as the study of art, music or design and importantly can aid the communication of ideas to the masses. The history of cinema is full of examples of the designer at work, and the outcomes of that work but more importantly it is full of examples of themes and lessons that can aid the designer in their understanding of the world and the motivations of the people they design for. Indeed film itself is a designed medium; it is, like design, driven by creativity, new ideas and the embracing of new technology. Therefore film continues and will continue to provide huge inspiration for designers, artists, innovators and creators.

## **3 OBSERVATION**

As a designer students need to be aware and open to the world around them. How they see and understand the world will influence how they design. They need to be open to influences and information that comes their way; as such it is believed, successful designers are those who are most open and accepting of outside influences. The films shown to the students over a period of twenty weeks enable them to observe and understand how creative film makers observe and interpret the world around them; in so doing the series of films opens the mind indeed the door to other media, media which influence the designers’ methods of thinking and ultimately their way of designing. The lectures they receive during these twenty weeks will commend to them a range of sources of further reading, inspiration and information including: historical sources, fiction and non-fiction reading (novels, comics, and magazines), art and artists (exhibitions, galleries), web resources, films (documentaries, movies etc.)

## **4 STORYTELLING**

As designers the authors like all in the profession use visual means to tell the story of the development of products; mood boards to rendered flat work, designed in order to demonstrate the work done and to sell the work designed to commerce and industry. In the past this work was largely illustrated via drawing. But now the media designers use includes: film-making, animation, interactive media,

photography and virtual reality. But the core principals of telling stories through clear narrative structures remain highly important. The films the students study via watching help them cogitate relative to the narratives behind the products they and others design. The programme of films is delivered in a thematic sequence, chronologically moving through the twentieth century as film has developed parallel and linked to other art and design forms.

## **5 FILM: PROGRAMME THEMES**

Visions of the Future; the first theme explores designers who are constantly imagining the future. Science fiction has an important role in popular culture in exploring ideas and technologies which may well come to be taken for granted in the very near future. This set of films explores the future as viewed from the past, particularly predictions of designers and film-makers, from the design of cities through to the design of the future of human-beings. Designers on Film; the second theme investigates how designers have been portrayed on film over recent decades; films in this theme include drama, comedy and documentary. The third theme studies ethics and the designer, attempting to analyse and critique the ethical dilemmas that every designer will have to come to terms with at some point in their careers. Telling Stories; this, the fourth theme explores the narrative structure and story-telling within films, in order to bring an awareness to the students cognitive patterns of how effectively communication between peers, customers and employers is played out and how ambiguous most of their communication actually is.

## **6 THE ASSIGNMENTS**

The second year were given the following two briefs; a critical essay, asking them to produce a written work of minimum 2,000 words in length, maximum 4000 (excluding reference and bibliography) by answering the following question relative to one of the following key texts; 'Do you agree or disagree with the authors view of contemporary design?' The key texts were,

- Sparke P (2007); An introduction to Design and Culture; Routledge
- Julier G (2000); The Culture of Design; Sage

It was indicated to them that they were required to read at least one of the key texts, preferably both; and that they should think carefully what they were trying to say about design and culture. The reading should have led them to other books, as they examined the listing given, started to formulate their own ideas, gleaned from reading, writing, practise and their own experience. To help with the written style they were given the following paper abstract:

'How thought provoking would it be to introduce students to 'Kester's Throne', a chair designed and built in Mozambique entirely from rifle parts, product design as an element of a programme of mass disarmament led by Bishop Dinis Sengulane, who invited artists and designers to 'convey a message of peace by using the bits and pieces of relinquished rifles' as a working material [1]. This one design brief, its embryonic issues, its resultant design, a chair, bringing into sharp focus for students, academic staff and designers all the elements of concern for the profession i.e. morals, ethics, mass production, advanced economies, emerging economies, lost generations, need against want, sustainability and correct choice. In direct opposition to this design of the emerging world they could critique Philippe Starck's infamous Gun Lamp, displayed at the Milan fair in 2008 for the advanced economies. It brought unwanted publicity to the design profession but within the art and design world it drew both favourable and unfavourable comment. Mark Delaney commented 'these products are symptomatic of design's continuing obsession with fashion and novelty; neither particularly beautiful nor artistically insightful [2]; a view opposed by Mike Curtis 'the controversial nature of Starck's latest work reinforces how the design industry can provoke and stimulate the consciousness'[3]. To introduce the students to these contrasting views of product design as a baptism to a programme, whose central theme would be critical thinking i.e. analysis is not only an exciting prospect but was the starting point for the theoretical development of an ethically centred, student simulated product design course; aimed to nurture responsibility through ethical consideration of design in the context of pastoral, economic and social terms'. They were told of the importance of this exercise to their development as young designers. Whether they were going on placement or moving on to their final year, this assignment presented the opportunity for them to; reference their thinking, concerning their interests in design and prepare them for the final year dissertation writing.

The second assignment presented them with the challenge of writing a visual essay on a design topic of their choice. The brief stated: 'You are to produce a 2000 word, maximum, Visual Essay, where

you will reflect and discuss specific examples of how your chosen topic relates to your development as a designer. The overarching aim of the Visual Essay is to encourage you to develop your individual views, opinions and standpoints of design, as a professional. For this assignment you must consider and draw from several key reference points. To help underpin your essay you must first choose more than one design principle to discuss pertinent to your chosen topic in your essay. Secondly, the essay must be supported by further research showing an understanding of the key principles that drive your work. Consider all lectures, seminars and other sessions that you experienced this year and think about how these have impacted on or challenged your ideas and views concerning your priorities as a designer.

## **7 THE FILMS**

The first film, 'The Man with the Movie Camera' is a Russian experimental, silent documentary film made in 1929; the film has no story and no actors. The film was made by the Russian Director Dziga Vertov, born David Abelevich Kaufman (1896 – 1954) he was an early pioneer in Russian documentary film-making during the late 1920s. He belonged to a movement of film-makers known as the kinoks, or kino-oki (cinema eyes). With other like-minded artists they declared it their mission to abolish all non-documentary styles of filmmaking. They insisted that the cinema of the future would be the cinema of fact, recording the real world or the life unawares, filming without disturbing often in secret. Vertov proclaimed the primacy of the movie camera or eye over the human eye. The film has been a major influence on the development of movies, documentaries and music video.

Metropolis, the second film, released in 1927 and immediately cut for the US market, Metropolis was inspired by Lang's first trip to New York combined with his father's background as an architect. Other key influences in the film include Le Corbusier's 1925 plan for Paris in which he planned to level the centre and replace it with 18 blocks each housing 50,000 inhabitants. The final designs for Metropolis mix Le Corbusier's vision with New York's "Urban Canyons". This film introduces the students to expressionist architecture, which was developed in the early 20th Century in Europe. As with expressionist art it was characterized by the influence of natural and biomorphic forms but linked to modernist ideas and materials.

The third film is a 'future noir' version of the book *Do Androids Dream of Electric Sheep?* Written in 1968 by Philip K Dick it deals with a number of themes that appear in much of Dick's work; most importantly the nature of humanity and the viability of our reality. Directed by Ridley Scott it depicts a dystopian Los Angeles in 2019. Originally released in 1982 the film had a troubled inception, was damaged by studio interference and was a critical and commercial flop. An examination of humanity, the implications of technology on the environment, man's control over the environment, memory and identity, perceptions of reality, corporate power and power of the state are all themes within this futuristic film. The fourth film 'Blade Runner' has deep similarities to Fritz Lang's Metropolis, including a chaotic future city-scape, in which the wealthy literally live above the workers urban squalor. Syd Mead a visual futurist and Industrial Car Designer mixed visualization, and style with Ridley Scott's background in art direction, advertising and commercials together with the industrial landscape of the director's original home in Teesside in the North East of England. The design is based on ancient Mayan temples and along with other buildings by Frank Lloyd Wright; the Ennis House is sometimes referred to as an example of the Mayan Revival architecture. After shooting the exterior scene on location for *Blade Runner* the interior of Deckard's apartment was created at Warner Brothers. The fifth film *eXistenZ* was directed by David Cronenberg released in 1999. The movie is set in a futuristic world where the inventors of virtual-reality games have become cultural megastars. In the film, Cronenberg blurs the distinctions between virtual and actual planes of existence. What makes the film potentially dangerous is its philosophical basis: its assumption that all reality is virtual, invented, and collaborative. The sixth film, 'The Shape of Things to Come', is a screen play written by H G Wells, whose background as a self-made, self-educated man lifting himself from poverty in Victorian London to become a biology teacher with strong convictions and a socialist political outlook. The novel has been variously interpreted as a commentary on evolutionary theory, British Imperialism, and generally Victorian superstitions, fears and prejudices.

## 8 ANALYSIS

Table 1. Results for Design Studies 1 and 2, 2010-11, 2011-12

	BA F&P Design 10-11	BA F&P Design 11-12	BA Product Design 10-11	BA Product Design 11-12	BSc Product Design 10-11	BSc Product Design 11-12
	Design Studies 1	Design Studies 1	Design Studies 1	Design Studies 1	Design Studies 1	Design Studies 1
<b>Mean</b>	51	45	48.6	50.4	45.7	52.6
<b>Std</b>	20.8	17.9	21.1	14.8	20.2	13
<b>Max</b>	72	65	77	80	68	67
<b>Min</b>	0	0	0	2	0	16
<b>1<sup>st</sup></b>	9.52%	0%	5.95%	5.1%	0%	0.0%
<b>2:1</b>	30.95%	12.1%	30.95%	19.0%	27.27%	37.8%
<b>2:2</b>	30.95%	42.4%	27.38%	35.4%	30.3%	37.8%
<b>3<sup>rd</sup></b>	11.9%	24.2%	16.67%	25.3%	24.24%	10.8%
<b>Fail</b>	16.67%	21.2%	19.05%	15.2%	18.18%	13.5%
	BA F&P Design 10-11	BA F&P Design 11-12	BA Product Design 10-11	BA Product Design 11-12	BSc Product Design 11-12	BSc Product Design 11-12
	Design Studies 2	Design Studies 2	Design Studies 2	Design Studies 2	Design Studies 2	Design Studies 2
<b>Mean</b>	60	63.8	54.9	59.5	59.4	58.7
<b>Std</b>	14.8	8.2	18	12.4	10.7	8.6
<b>Max</b>	70	76	70	80	68	72
<b>Min</b>	0	29	0	0	20	33
<b>1<sup>st</sup></b>	6.98%	15.88%	3.13%	12.9%	0.0%	7.7%
<b>2:1</b>	67.44%	65.8%	56.25%	45.7%	73.91%	38.5%
<b>2:2</b>	16.28%	13.25%	20.31%	30.0%	13.04%	46.2%
<b>3<sup>rd</sup></b>	4.65%	2.6%	9.38%	7.1%	8.70%	3.8%
<b>Fail</b>	4.65%	2.6%	10.94%	4.3%	4.35%	3.8%

Initial valuation of the last two years results for both Design Studies 1 and Design Studies 2, shows improvement in terms of outright failure i.e. less students and an increase in the number of students who attain either a first category or a 2:2. In both years the mean mark for the cohort has improved from 48 to 51, year one and 58 to 61 year two. In year one the maximum mark of 72 remains constant but the minimum mark is improved to 11 from 0. In year two improvement is registered in all three areas the mean mark for the cohort moving as stated previously from 58 to 61, the maximum from 69 to 76 and the minimum from 6 to 20; this suggests a greater connection to the module and more students 'buying in' to the assignment requirements, evidence the authors re-working of the module content and its delivery is having an effect. This improvement is seen in all three courses but particularly BA Hons Product Design, closely followed by BSc Hons Product Design, always

perceived to be disengaged by critical studies, but who have moved to a position where 7.7% of the cohort in year two gains a first classification.

## **9 CONCLUSION**

The authors believe the courses should in terms of teaching, model and emphasise critical and problem solving ability. They should promote independence. Independence is wrongly seen to be a product of less teaching rather than as a result of an interest generated by an exciting and dynamic curriculum, which may actually involve more teaching; particularly to smaller groups sizes. As design academics, we within the UK are starting to examine these needs and are finding that their provision is not available within our current curricula and course architecture. As a result, these forward thinkers are starting to examine the nature of the curriculum and are promoting design studies within new frameworks. One approach is more familiar to those working in the Arts and explicitly relies on the integration of subjects, project work, discussion and the freedom to negotiate one's learning needs. This emphasis has been firmly placed within the innovations so far described, but in order to be truly effective a wholesale move towards studio, thematically based course may be the route forward. In the authors' department, the wholesale redesigning of courses is not at present an affordable luxury at least not within the immediate future. We do however recognise most of the issues referred to in this paper and are making changes where we can. We should and we are emphasising the great importance of the first year of design studies formation. It is here within six weeks of entering an institution that our students will develop a reactionary attitude to learning. If we create the wrong motivational climate we will turn our students off for the rest of their course of study. Our first year tutors must be our best. Not our best in terms of their status, or their knowledge, but the best in terms of generating motivation and of encouraging students' curiosity. The adoption of less formal teaching, more peer teaching, project work, continual assessment (group and individually based) and thematically based courses, would enable the inclusion of this kind of development into the curriculum. Clearly, the change to a screening programme of interactive design led films integrated to the design based modules described is an attempt to deal with this. Active learning requires more time spent with tutors who will encourage thinking, exploration and the development of ideas. These tutors need the backing of a great deal of resources and more importantly the explicit, political backing of institutional executives, accrediting bodies, employers and of course, all members of staff. It must be stated that what appear to be local, subject based initiatives are in fact responses to eclectic drivers of education in which the authors as design educators find themselves. The authors have reported their efforts at two levels of the curriculum and in so doing have drawn together some of the wider issues which have formed the implicit stimulation for changes in teaching and learning methods.

## **REFERENCES**

- [1] MacGregor, N: *A History of the World in 100 Objects*; Penguin Books, London 2010; ISBN 978-1-846-14413-4; page 645.
- [2] Clark, H & Brody, D: *Design Studies a Reader*, Berg, Oxford 2009, ISBN 9781847882363, page 210; Extracted from J Stones, 'Incendiary Devices', *Design Week*, 20/17 (2005), page 16-17.
- [3] Clark, H & Brody, D: *Design Studies a Reader*, Berg, Oxford 2009, ISBN 9781847882363, page 210; Extracted from J Stones, 'Incendiary Devices', *Design Week*, 20/17 (2005), page 16-17.