

NOT ALL DESIGN IS ABOUT PROBLEM SOLVING: CREATURES OF CREATION

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The Design Studies modules at the University of Dundee support two recent start-up programmes, Interactive Media Design (IMD) and Innovative Product Design (IPD). Both are cross faculty, linking Engineering and Physical Sciences with Duncan of Jordanstone School of Art and Design¹. As such they actively recruit students from both a science stream and an art and design stream. This means that students enrolling on these programmes may have widely differing experiences of art/design related education, with some having no previous experience at all. Project briefs for the shared Design Studies modules must be designed to meet the needs of students who may have very different interests, skill-sets and varying aptitudes in visual design.

An experimental design method, was developed specifically to support these students in the first year, first semester module. The aim was to provide them with an opportunity for working in interdisciplinary teams, where they could engage in peer learning by dialogue, observation and participation.

The project called “Creatures of Creation” introduces the concept of narrative to the curriculum offering an alternative to traditional technical/ design problem solving briefs. The objective is to develop ideas for a stop-frame animation, the characters, the story, the set and some essential props. Now in its third iteration, feedback from lecturers and students indicate that it was successful in its original aims and observed that the project design-method was interesting, and resulted in a particularly rich body of designed materials.

In this paper we give an account of the origins of the method and describe its use in practice, including some of the materials that were produced, some features of the design activities that emerged as a result, and offer some reasons why this method may have provoked such a rich response.

Keywords: Curricula, Interactive Design, Product Design, Media Design, Narrative, Interdisciplinary.

1 RESEARCH METHOD

The author used formal participant observation as lecturer and project tutor over the four-week duration of the project in which students had a total of five hours supervised studio sessions. During this period notes were taken and analysed through a process of

¹ At the time of writing the University of Dundee is undergoing restructuring. The faculties are due to merge in August 2006.

summary to identifying themes and issues that emerged. On conclusion of the project student teams presented their project idea to the rest of the class and shared their experience of using this design method. The presentations were videoed and the materials that were required for assessment were gathered from students for later analysis.

A total of 47 first year undergraduate students were involved in the study. Of these 24 were from the IMD cohort and 23 were from the IPD cohort. Students were asked to form teams with 1 or 2 partners from their own cohort. They then formed an interdisciplinary team of 5 or 6 people with students from the other programme.

The brief constituted 50 percent of the overall marks for the practical component of the module in which the subject specific skills were to: demonstrate the development of 3D modeling skills; demonstrate the development of drawing skills; translate ideas into a visual format, and to undertake visual research gathering source material to inform the design process.

2 DESIGN METHOD



Professor Wicked



The House in Dark Forest

The authors noted two trends in design research and practice that offered the potential to meet the needs of both the Media and the Product design students, and considered it appropriate to integrate these concepts in to a single design method.

Firstly there is the interest in the design of narrative objects. That objects have always had narrative significance within our lives is illustrated in the design of ritual objects, like wedding rings and dowry chests. Recently this concept has been explored in the work of designers Dunne and Raby [1]. When they talk about the potential of objects to “subvert”, to focus on the “psychological dimensions” and to “generate ‘existential moments’”, they are referring to an objects’ potential for narrativity.

On the flip side, the move towards user-centred approaches to design practice is beginning to extend the requirements gathering focus of design projects to ‘social users’, (‘consumers’ or even ‘citizens’ might be more appropriate terms than ‘users’ now) and not just ‘individual users’ [2] and extending usability to cover the whole product life cycle, and less goal oriented/work-based activities – for example to consider the question of design for leisure activities in the home [3]. Participatory design (PD) and its Scandinavian cousin co-operative design were developed to involve users more closely in systems design, and entail a shift in emphasis away from cognition/task-based approaches to design and towards understanding the behaviours of groups of users interacting in complex ways within different settings [4]. A number of techniques have been adopted and/or developed to facilitate the PD/co-operative approaches. For example scenarios of use are narratives describing what people do/might do in the future when engaged in particular activities [5/6] these can be envisaged through storyboarding techniques. Scenarios have been developed from in-depth ethnographic studies [7] – or brainstormed by users and designers in design workshops or in brief sessions with workplace managers [8].

To develop the design method we drew upon literary and language theory, in particular the work of Mikhail Bakhtin who saw language as dialogic; meaning that it could only be grasped in terms of its orientation towards another [9]. A key concept in his work is the ‘utterance’. This differs from a sentence because it is always context specific and as such implies expectations of response from its audience. He proposed the concept of ‘speech genres’ in which he contrasts the use of the military utterances and their tightly defined expectations of audience response with the utterances of intimates, which have a much broader scope for interpretation. Importantly his work implied that the ‘sign’ is not fixed in meaning, but is an active component of language. Thus the meaning of an ‘utterance’ can never be finalised as the valuations and connotations of the ‘sign’ are constantly shifting (see Eagleton [10] for an introduction). Schon and colleagues [11/12], and later Dearden [13] developed this work in the context of design to explore a concept of design as ‘a conversation with materials’.

In this project we build upon these ideas placing narrative alongside visualizing and making to create a method that would provoke a spoken dialogue between the three activities. Junk materials were used for making two and three-dimensional images. Sometimes the story making led the process, at other times the image making took precedence.

The method is marked by clearly staged deliverables, however students were discouraged from thinking of these as finalised. Any deliverable could be modified at any stage in the project, responding to design developments. As the project progressed the meanings of images, and story events, were constantly shifting in relation to one another. In this way image, object and story were both creative tool and design artifact.

The deliverables were as follows. First the students created an annotated 2D collage creature, developing a description of how and why their creature had evolved to look the way it did. They then went on to develop three key characters in 3D using junk materials. They discussed possible relationships and improvised dialogue between the characters with potential for story implications. Then they wrote a story-outline linking the characters together. This was developed further in a storyboard, which was also to

include ideas for camera moves, and annotated requirements for a three-dimensional set design. This was also built from junk materials. Lastly the teams prepared a presentation to communicate their finished animation idea and a storyboard that reflected upon the associated design process.

3 DESIGN GENRES AND FEATURES OF DESIGN ACTIVITY

Below are the story-outlines from two projects that demonstrate a marked difference in design genres. This was thought to be a result of the contrasting way in which group members engaged in design activities and could be described as ‘genres of design activity’.

Team A created an action-based story about a battle between three monsters. The monsters are an enormous Dog, a Sea Monster and a fire-breathing Dragon. What is striking about the narrative project developed by Team A is the students concern with spatial representation.

“The story opens with a dramatic News Flash from the reporters in the sky, with equally dramatic shots of the city. They tell us that three monsters of folklore have arrived in the city to stage a final dramatic battle to the death. There are some establishing shots of the Monsters, complete with text banners presenting statistics and the powers. In this we find that the Dragon and the Sea monster have equal but opposite powers of fire and water, while the Dog is tipped to win because of his greater strength and size. We start with a testing battle between the Dragon and the Sea-monster in which the Sea-monster throws the Dragon against a building with a jet of water. Next the Dog and the Dragon have a face-off. The Dog backs off towards the river and is trapped between his foes. They team up against him and eventually the Dragon kills him in a burst of flame, looping the loop in a celebration of victory. Once again there is a battle of strength between the Dragon and the Sea Monster, but their powers are equally matched and eventually the Dragon flies off. Unexpectedly, the Dragon returns, swooping around behind the Sea Monster and lifting him out of the water to throw him against a building. The Sea Monster is injured, and out of his natural environment, but he fights on. Once again powers are equally matched, water against fire. He attempts a retreat, backing into the water and swimming away. There are some exciting shots of the chase, as the Dragon pursues him. For a second time the Dragon lifts him out of the water to smash him against a building, this time killing him with a blow to the head. The Dragon, triumphant, celebrates his victory.”

The storyboard is annotated to include a range of exciting shots that create pace and tension. Their interaction was marked by boisterous humour. There was clear competition to develop the “best” character model, which were big and highly finessed. From an early stage they used their models to role-play, events. They would pretend to fly over the city then suddenly attack one another as if to ask “What happens if..?” Their dialogue was marked by statements like “They need to have magic powers that are as strong as one another” “One can be water and one can be fire” “We should have a river”. These physical performances developed action-based competitive scenarios and resulted in a narrative that is strongly game-like in quality. They drew on an Japanese Anime style, which they thought epic and reminiscent of Godzilla.

Team B developed a story called “Rejection Leads to Wickedness” which is marked by its use of complex symbolism. There are three key characters, Professor Wicked, the inventor who lives in the house in Dark Wood, Robot, the professor’s creation and Innocent, the beautiful, but conceited girl with the golden hair.

“One day Innocent is out for a walk when she passes by the Professors house. He sees her through his window and falls in love immediately. The next day he tries to approach her and creeps up behind her to stroke her beautiful hair. Innocent turns away in disgust. Shunned and sad, the Professor returns to his house. Later, he finds an old mirror in his attic that he decides to clean up and give her as a gift. Without the courage to approach her he leaves it hanging on a low branch in the woods. But the mirror is distorted and makes Innocent appear ugly. Rather than being flattered, she is insulted and throws it away. When the Professor opens his door he finds the mirror tossed on the rubbish heap at the end of his garden. Burning with anger he smashes the mirror and as the moon rises he sets to work building a Robot. At dawn he is exhausted and falls into a deep sleep. The Robot opens his eyes. Later that morning the Professor reads a review in the local papers about a rival scientist who has won an award. When he sees his rival’s photograph, showing him to be handsome with thick golden hair and a beautiful wife, the Professor is jealous. He imagines what life would be like if he had the same thick golden hair. He calls on Robot and commands him to go after the girl. Robot captures Innocent and brings her back to the house in Dark Woods. As Robot holds her down, Professor Wicked cuts off all her hair and places it like a wig over his own. Robot watches Innocent cowering in the corner and for the first time feels remorse. While the Professor admires himself in the mirror, Robot helps the girl to escape through the back door.”

The males in this team worked on making the Professor and the Robot, while the females developed the storyline, storyboards and set. Amongst the females the dialogue was playfully quizzical: “Why does she have such beautiful hair?”, “Is he really in love or is he just obsessed with her hair?”, provoking and progressing and subverting the narrative development. Symbolic objects like the mirror provoked discussion around which major turning points developed. They were inspired by the look and feel of the Brothers Quay animations, and this became apparent in the materials that they selected and the imagery they developed. They maintained that the dark inkiness of their models and drawings preceded the storyline, and that the controlling idea, “Rejection Leads to Wickedness”, only emerged in the final stages of the design.

4 CONCLUSIONS

The “Creatures of Creation” project suggests that narrative-based methods offer a useful alternative to ‘problem solving’ projects where students with vastly different prior art/design related educations need to acquire a range of design skills. Student feedback indicated that the focus on narrative introduced a new skill-set which provided those with little or no prior design experience an alternative way to contribute to project work. In addition, the activities developed did not unduly favour the interests of either cohort and where students lacked specific skills they were able to engage in peer learning by observing others in practice and contribute to project work through dialogue.

Both students and lecturers agreed that this design-method provoked a rich response. It is suggested that this may be attributed to the open-ended nature of the process, which

meant that the meaning of each “utterance” (material or verbal) was not finalised during development, giving rise to the possibility of multiple interpretations and a complex layering of symbols through which meaning could emerge. The students involved developed genres of design activity. Design became role-play, a search for meaning, a response to materials, a means of communicating, a performance, mediation, subversion, and even problem solving! It is likely that these genres of design activity impacted upon the designed materials that were produced.

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