

Education in multi-disciplinary solutions of design projects

Daniel R. Echeverri

M.F.A in Visual Communication Design Candidate

School of Visual Communication

Kent State University

decheve2@kent.edu

ABSTRACT

The importance of multidisciplinary relations between design students is recognized by the way it encourages innovation and the use of tools of the knowledge in solving design problems (Design Council, 2010). This paper presents the method, the observations and conclusions of a pilot project carried out between 2011 and 2012 that sought to create new relationships among students from different design schools at the same university. Art Direction course was originally intended for Graphic Design majors, became an experiment after the majority of students did not belong to this program but others offered by the institution, Advertising, Fashion Design, Spatial Design, Organizational Communication, and even Gastronomy and Professional Kitchen. The intention of this paper then is to document the process and present the information to be implemented by institutions and teachers as an alternative approach that allows students of different design disciplines generate multidisciplinary solutions.

Author Keywords

Multidisciplinary, Education, Design, Undergraduate, Innovation.

INTRODUCTION

Design has traditionally been taught as a unit where the student works only focused on one discipline, for instance if its a Graphic Design major the majority of his or her courses will be Graphic Design courses. However, following the definition of design, design is the human activity of formalizing the description of an artifact, an activity or a process and in turn the result into an artifact (BATILL, 2000). That is why design education through multiple disciplines is important as the artifact can be anything from a poster to a book. The UK Design Council defines this approach as a situation where different disciplines cooperate but it does not modify the solution (DESIGN COUNCIL, 2010). The teaching of different design disciplines should not be seen as isolated from other subject areas but as a way to unite and share knowledge.

OBJECTIVE

The main task is to build and expand bonds between students by using creative freedom and facilitate the

exchange of valuable information that they have acquired during their university education and stimulate research in the development of design projects.

THE METHOD

Art Direction classes are structured in three stages with the same length but with different foci allowing connections to form and information to be exchanged among students (Ollis, 2004). Classes meet twice a week for three hours each following a simple structure:

- Presenting for approximately thirty minutes a topic related to the project to illustrate the solution of a design problem by using the recursive knowledge of a design team.
- Reviewing progress and group evaluation of the results, which allows the same students to be the critics of their own work.
- Approaching the next step in search of a solution and creation of the artifact.
- Sharing the solution and definition of the tasks assigned to each team for the next class.

First Stage: The teacher as the project guide

For five weeks students develop a project related to the reinterpretation of a product with which they are familiar. Then they make a sensory exploration of all conceptual references that the product produces to themselves; for instance what the smell reminds them of, what conceptual image they see when they feel the texture, what they hear when they handle the package. They generate a list of concepts derived from this exploration. From this list, the student decides how they want to reinterpret the product. This first stage is intended to give a sense of independence since this is the only time during the classes that the student works alone and has an initial approach to the concept of creative freedom.

Second Stage: Student guides, student creates

In this second stage, teams are created where each member serves in a different area of design. This phase is divided into two parts. The first part of the project requires all students become familiar with a list of preselected movies either from a single director, same genre or year. Each student must then choose a scene that

has generated curiosity and outline a three-dimensional object that relates to their choice and that also takes advantage of the skills from the other member of the team. This initial process lasts for two weeks and the student gathers extensive knowledge on what the object should be. However, for the second part of this process, the teams are reunited and roles are exchanged; Student #1 delivers all his or her research to Student #2 and the object has to be developed under the direction of his partner and vice versa. Thus the result for both will depend on their ability to lead, delegate and conceptualize an idea that is not their own. This project becomes a major challenge for the student because it represents the need to rely on, trust, and use the resources their partner has.

Third Stage: Student guides and creates, teacher assists

In the final stage the roles are changed and the teacher attends or supports the student in developing a project of Art Direction for photography. Again, a topic is defined with which students are familiar and teams are created composed of students from various disciplines. This team in turn will develop the creative concepts and visuals for a fashion shoot. The teacher's task is relegated to taking pictures and managing the camera equipment, leaving everything else in the hands of the different teams. It is a longer process than the previous stages since it requires a handful of logistics and organization. During this stage students are taught about the implications of a project of this magnitude and the importance of the roles played by each area of design and each student in this task.

EXAMPLES OF STUDENTS WORK

A solution for the first stage

During the June and July sessions of 2012, students in Art Direction had to reinterpret a popular candy they were familiar with.



Figure 1. Healthy Chocoramó, a solution for health-aware mothers.

Healthy *Chocoramó* (Figure 1) For this Fashion Design student, the project represented her mothers obsession with feeding her child healthy food. The student explained during the first research classes that her mother never let her eat the original product because it was not healthy enough. This was a way for the student to return to her childhood and find a product that suited her mothers preference.

A solution for the second stage

In the second semester of 2011 the students of Art Direction had the task of creating an artifact based on their choice of a classic movie from the 60's.

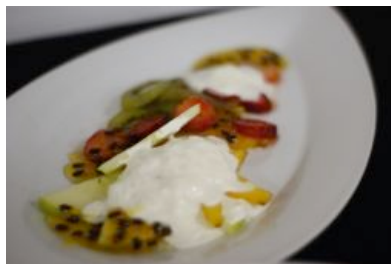


Figure 2,3,4. A three course breakfast for Holly Golightly. A joint project ideated by a Graphic Designer and developed by a Gastronomy student

A three-course breakfast for Holly Golightly (Figures 3,4,5): The development of this project was an interesting process because it was the first time a Graphic Designer and a student of Gastronomy and Professional Cooking worked together. Leveraging the capabilities of her partner, the Graphic Design student created the concept for a breakfast that met the dining needs of Holly Golightly, the protagonist of the movie *Breakfast at Tiffany's*.

Solutions in the last stage

London Calling and Exile on Main Street (Figure 6 and 7) are some of the projects that were developed during the last stage of the class of Art Direction in the first half of

2012. The main subject for all teams was to select one of the 10 best rock albums of all times and develop a photographic production using it as the conceptual basis (Rolling Stone Magazine, 2003). All projects included design students from different areas. The process involved graphical conceptualization, the definition of a work schedule and the attainment of all necessary materials for the photos including props and costumes. Each team had to present, over the last five weeks of class, present their research (not only visual) to define each of the parameters of the photos.



Figure 6. Photo shoot inspired on the album London Calling by the British band The Clash. Figure 7. Photo shoot inspired on the cover of the album Exile on Main Street by The Rolling Stones.

OBSERVATIONS

At the initial stages most ideas originated by students are fragmented concepts that respond only to a solution related to the area of knowledge that the student belongs to; for example a Graphic Designer may have a visual solution framed in a two dimensional space, whilst a Fashion Designer will look for a three dimensional solution that in most cases will be a wearable object. Only through teamwork and awareness of the need to create a solid idea that shares the same conceptual origin will the solution work in a multidisciplinary design team. "When people from these different backgrounds come together, they often run into conflicts due to their lack of a shared definition the problem" (Mackay, 2003).

Coexisting in an environment composed of people from different schools can be challenging for students, and in most cases when public reviews are made they feel exposed to share their ideas; mainly to avoid being judged or misunderstood they decide not to speak. It is important to encourage students to understand that it is normal to

make mistakes during the different design processes, especially when there is an approach to a subject with which they had minimal contact.

Reflecting with the students about the experience of sharing knowledge sometimes requires them to adapt and expand skills that were acquired during their regular classes, which will lead to a true multidisciplinary learning that can be applied in a different level on their professional life (Amon, 1996).

Universities and other educative institutions need to create spaces where students that share the same discipline (design in this case) but have a different approach to it can exchange their knowledge and their own ways to solve issues and extend links among them.

REVISIONS

This paper describes a year and a half of observations and experimentation with traditional educational structures in a non-traditional approach to solve design problems. It is the authors intention to keep working on this topic and exploring it while working on his studies for the Master of Fine Arts in Visual Communication Design at Kent State University and will be an important base for his incoming thesis project.

BIBLIOGRAPHY

- Amon, C. H. (1996, October). Integrating Design Education, Research and Practice at Carnegie Mellon: A Multidisciplinary Course in Wearable Computers. *Journal of Engineering Education* , 283.
- Batill, S. M. (2000). Using a multidisciplinary design framework to teach decision- based design. *Multidisciplinary Analysis and Optimization Conference and Exhibit*. Notre Dame: American Institute of Aeronautics and Astronautics.
- Design Council. (2010). *Multi-disciplinary design education*. Design Council. London: Desing Council.
- Mackay, W. E. (2003). Educating Multi-disciplinary Design Teams. *Proc. of Tales of the Disappearing Computer* (pp. 105-118). Paris: Université de Paris-Sud.
- Ollis, D. F. (2004). Basic Elements of Multidisciplinary Design Courses and Projects. *International Journal of Engineering Education* , 20 (3), 391-397.
- Rolling Stone Magazine. (2003, December 11). 500 Greatest Albums of All Time. *Rolling Stone Magazine* , pp. 83-178.