

DESIGN THINKING AT THE HEART OF A BUSINESS UNIVERSITY: AN EXPERIMENTAL PROGRAM.

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March 2008

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Abstract:

The present report describes a pedagogical experiment of including design thinking and a design project as a part of the syllabus in a business school's executive education program. The course that incorporated the proposed design elements was a short term duration course on Marketing and Innovation in Retail and Distribution. The authors describe all the stages of this experiment – from the invitation extended to the first author as a product design specialist, to the final debriefing from the coordinators of the course (which includes the second author) at the end of the program. This paper details the changes made in the course to incorporate the design project, the feedback from all parties involved in this first edition of the course, and concludes with the learning points to incorporate in the 2008 edition of the program.

JMS: I firmly believe that a very big part of a successful organization is accounted to management and leadership that understands design and designers in their full potential. This means understanding design thinking and its impact in the way the organization thinks and acts. This is the reason I have always said that I prefer to talk about design with non designers then with designers, or better said, I believe it is more interesting and rewarding to convince newcomers than converted designers. I have had a few design management education experiences, in business, management, and design institutions in Portugal and in Spain. Never felt completely satisfied with the results, but the experience has been important for what I have been working on lately.

While working in Barcelona, I made a contact with the Universidade Católica Portuguesa explicitly asking them to work with me on issues regarding Design Management. I knew they had no history in the matter and had no formal ties with DMI nor with any similar organization. Universidade Católica and their School of Economics and Management (FCEE) is widely recognized as one of the best in Portugal, recently been awarded the Triple Crown (accreditation by the AACSB, the EFMD and the AMBA), which positions them at the top 1% of the business Schools along with places like INSEAD, London Business School and IESE. I knew that if I was able to involve UC, my objective of putting design management on the agenda of business schools in Portugal would become more amenable.

I was contacted in September 2006 with an invitation to meet the executive training coordinator for a project in which they would like me to participate. They were putting together a short executive training, on issues that would cross marketing with design and branding. Their objective was to engage me as a specialized tutor in one specific module on new product development - my specialty. They had a good idea of who they would bring on board for the other areas and were mildly open to discussing the format and the structure of the course.

KML: I joined the project at a later stage, when the basic structure of the syllabus was outlined, and the key contributors to the content of the course were determined. Being a full time faculty member in FCEE with research and teaching interests in marketing and branding, I eagerly accepted the invitation to contribute to this course. My contribution was planned as both the instructing in one of the modules and contributing to academic coordination of the program's content.

The program was positioned as a specialized course in the School's executive curriculum for professionals in distribution channels and retail. This was a short term course, with 80 hours of classroom time over a period of 4 months (10 April to 12 July), twice a week - a morning and an afternoon. In addition to the specialized focus in the course on retail and distribution, the first and consecutive editions of the program were planned to have open enrolment (i.e., not limited to a specific company), which had strong implications for potential participants. The course had to appeal to professionals with various levels of experience and from different companies involved in distribution and retail.

JMS: I started inquiring into the objectives of the training itself and what other areas they had in mind covering, The syllabus included areas like marketing and branding, but also management of commercial teams, retail strategy and desire, customer satisfaction and investment evaluation. I believe that in a lot of cases with these programs, they start with available tutors from within the faculty, people they have worked with before and had good experiences. I was clearly the wild card and I appreciated the fact they were listening to me.

I started questioning what they meant by “new product development” if they wanted the strategy behind identifying opportunities and prescribing new solutions, or the nuts and bolts of product development. It was agreed that the strategy behind designing and developing new products was of greater interest. I questioned them about the limits of what could be understood as “product” and although products are my expertise, we are still a service economy. It was agreed that there would be no borders between products and services, in the core it was very much about designing the business of products and services intertwined. I also questioned the fact that all the subject areas that the course was covering were very vaguely connected to each other and that I believed there was a need for something that would help the students apply all content gathered in one single experience, and started evolving with the idea of using a product design project as the driving element that would allow students to relate different knowledge.

KML: As part of my initial briefing on the status of the course design, I learned about an on-going discussion to have a group project in this course. There was an idea of adding a dimension of *design thinking* to the projects by focusing on new product or service design, though it was not clear how the *design* will be implemented in the proposed module.

I am an advocate of using group projects in teaching undergraduate and MBA marketing courses. However I was quite cautious about using this pedagogical tool in an executive education setting. My previous experience teaching in programs to professionals suggested that the participants usually tend to be less motivated to devote time to interactions beyond those that happen in the classroom, even less so if they come from different companies. However, involvement of a well-known designer group in the capacity of third-party co-contributor to the course’s content was a point that was likely to motivate the participants. It would also provide additional differentiating element to this course in our executive programs in the area of marketing.

In my opinion, for new product *design* group projects to achieve maximum learning potential and get close to a desired level of participation, it needs to be an integral part of the course and make specific *design* knowledge contributions in the material throughout the modules of the course. In our case, however, the majority of the course structure, subjects and instructors were apparently already determined by the time this new module was proposed.

As I saw it, without a better idea on how to incorporate the *design thinking* or making major adjustments to the rest of the course, the success of the group projects module was quite uncertain. I have given my feedback on the state of the course design and specifically regarding the group project module to my colleague coordinators. My schedule didn't permit to sit in on the next meetings with the designer group.

JMS: The FCEE people involved in the course structure were open to the idea group project in general, but apprehensive of introducing a design component to an audience of non designers in a business school like the UCP. I then brought up several examples of how 'designerly' way of thinking was being successfully taught in business schools (eg.: D-School), how some very respected business schools embraced design thinking as an education paradigm (eg.: Rothman), and how it even propelled new schools (eg.: 180Academy). I explained my view that this exercise would bring the managers out of the comfortably familiar decision making process, and would push them towards a design-oriented mode (congruent with design thinking theory). This would still allow for practical application of the participant's knowledge. I believe it was the successful cases of other business schools that allowed me to convince the school to implement the group project *with* the design thinking as an integral part of the module.

After accepting this as a good start, there were some practical questions that needed to be addressed before anything:

- How could you design a product when there were no designers in the group?
- How could you design a product with so little time (many students meet for the classes and never meet again outside that context)?
- How far would it make sense to take the design project?

I started entertaining the idea of breaking up the large group of 24 students into 4 groups and introducing an external designer to each of the groups, as if they were a client company. This was a radical approach, and the first reaction was of caution. There were issues of novelty but also of budget. The school has budget, but something like this would have to be submitted and validated by the Board of Directors before budget was allocated, and the coordinator thought we should not engage in this process before we made a dry run in the first edition of the course. Though I knew it would be easier to introduce graphic / communications / web designers in this context, I decided to introduce them to industrial designers because I know that they are already full of habits in using graphic design in the last mile of the project, as image and visual automators. I didn't want the designers to be called in the last hours to touch up presentation slides, I wanted them to be part of the project from start. For this group *product design* would appear more "serious", demand more attention and an earlier interaction.

I had the opportunity to invite mature designers to be part of this experience, but I was afraid they would not agree to invest their time and would probably want to do

more than the situation allowed us to do in this first interaction. I have a network of young industrial designers called Innotalent. They are a bunch of talented designers whom I have rallied under this umbrella name - a network that I am grooming to introduce to the international industrial design buyers. I am investing in their additional training and working with the group by introducing them to the real world clients and projects, so that the designers can detect issues in these projects, and help the clients solve them. I decided to use this network and stated that I would identify the best designer for the job after the student groups had done their first mission – identify an area where they wanted to work in. I had a clear idea that I didn't want the process to be very controlled, I wanted to learn from what would take place instead of simply trusting my own experience on what usually happens when you put a young designer in front of a client who is inexperienced in design issues.

The school's representatives and I then discussed that the time previously allocated (3,5h) would not be enough to provide a theoretical background and work with the students on the design project. The compromise was to double the time of the class interaction on the projects and to offer one 3.5 hour module at the beginning of the course, and the other at the end. This would allow me to give them the theoretical background behind design thinking and setup the ground for the design project, which would run throughout the three months, with a session at the end for project presentation and further discussion.

KML: After the commitment to the new product design projects as a part of this course, we called for a general meeting of all the invitees and faculty members involved in teaching it. Jose had the burden of explaining to them the novelty of this particular training. Since this was an experimental module for the course, with unproven success or contribution, we assured the instructors that they would not have to change their teaching objectives and content. They just had to be aware that the projects would ongoing in the background and that the students might ask specific questions related to their projects. After this meeting the program was christened with the new name of “Marketing and Innovation in Retail and Distribution”.

Weeks later, after mail and phone promotional activities we closed subscriptions for the course. The resulting student group was a number of commercial, marketing and brand managers, middle executive managers with responsibilities in sectors that ranged from food & beverage, to retailing, logistics and pet nutrition. Nearly 50% of them had previously worked with designers at one time or another, but only on graphics and web design.

JMS: The first module on the new product design went well. The students were open to the new information and very interested in the way they could apprehend some of the design thinking and incorporate it in their typical activities and day-to-day business. They wanted all the literature I had prepared and felt the design project was very enticing, thought the time available for the project seemed to be a problem from the start.

My training documentation had information regarding the basis of design thinking, factual and case study materials, practical information on how to think like a designer but also how to engage with designers. I even printed out Seth Godin's "How to live happily with a great designer". I reserved the last part of the first module to explain the design project idea. I explained the ground rules and after separating the groups, worked with each of them in finding an area they would like to work with.

The ground rules were simple:

- They were supposed to use all the knowledge gathered in the different modules and apply that to conceive and design a new product
- They would work with the designer from start, including him/her in all project discussions
- The designer could only devote 5 working days to the complete project, and only three in helping the group present the concept and design
- The last session would allow each group to defend their concept, in front of the other groups and of invitees I would bring along
- They had to choose an area that was out of the core competencies and business experience of the group members, so that new ground could be broken.

The groups then chose their areas. Group ONE wanted to act in catering sector, group TWO was attracted to the organic foods sector, group THREE wanted to do something about recycling materials and group FOUR wanted to explore new voice2text opportunities in the market. Based on this I chose 3 young designers for groups ONE, TWO and FOUR, and a more mature designer for group THREE because the group was very ambitious about where they wanted to go with the recycling project.

When I met with the designers I explained what the project was about, I told them the school had no budget but I would split my pay 50/50 and spend that money in a really nice meal with the four of them. They agreed and we had a very good session on how they should approach the group and what they could give to the group. We covered areas from posture and positioning, to the type of research they could do, the level of planning they should demonstrate, the visualization they should aim for, the results expected, etc. I then introduced the designers to all the groups, unfortunately by e-mail and this was part of my learning.

Throughout the 12 weeks the program was running I was online both with the students and the designers, and this is a short summary of what happened with each group:

Group ONE – Catering sector

Workflow – This group started really well, they all met and discussed what they aspired to do within the sector, they focused on creating a service that would take

gourmet meals to small and medium size offices in urban areas. They started using all the information that they acquired throughout the different sessions and began to build a case in favor of the idea. They allocated one of the group members to deal with design issues, and this was a bad start; once you allocate design to one, the others disconnect. In this case, the student was used to working with graphic designers, and was eager to have a logo, a brand to stick on the meals. The designer was more interested in the logistics of the meals, he defended that a gourmet meal needed a delivery method and a service just as gourmet as the meals, and neglected the graphic part. The student in charge panicked and went and asked a designer friend to help with the logo, and a week before when they all met and André went to share his progress on the meal pack and on a menu to be left at the clients, he was faced with an identity developed by another designer. André applied the identity he was faced with to the products he designed and the whole thing looked together.

Relationship with the designer – The designer in place, André Gonçalves, participated in all the early discussions, and he felt very comfortable with the students. He wished they would have included him more at the beginning of the project.

Results – The group presented a pretty consistent project with pride. One of my invitees was particularly fussy about some of the economics they had put up to support the idea, but they all loved the products and the graphics.

Group TWO – Organics food sector

Workflow – This group didn't start as well as Group ONE, they had trouble meeting all at the same time. Three of the students with a stronger mindset decided to create a restaurant for organic food, a place where people could sit and have a meal that was 100% organic. Susana Branco very quickly drafted out an identity that would work as an umbrella, and as soon as everyone was satisfied she started dealing with something she was passionate about – the physical place, the restaurant. She believed the place had to share the same values as the food it would serve, and so she aimed at designing a place that would be sustainable to the core and allow all sorts of different people access and experience the organic food. She didn't go into the detail of the restaurant, she just focused on defining a good set of grounding rules that would allow good development and planning to take place. The group started to get enthusiastic with the project and in the end they all worked pretty close.

Relationship with the designer – Susana complained that they didn't pay as much attention she would have liked in the beginning, but things got better at the end of the project.

Results – In the presentation day, they decided they would take to the class a large basket, properly identified with the brand, full of organic products they would love to

serve in the restaurant. They also shared a vision of the place and how it would be a different experience all together. The weakest part in the project was the communication plan, and the fact that they did not think about scaling and business growth would then be endangered.

Group THREE – Recycled materials

Workflow – This was a ‘problem’ group from start, because there was a student that was a natural leader and a strong minded individual. He aimed from start to develop a business idea based on recycling rubber to make industrial palettes. This was probably a pet project of his, and he wanted to use the opportunity to develop it a bit further. So he listened to no one, and when the invited designer Leonardo Springer started questioning the idea, he decided to join forces with another student and run the project by them selves. He wanted the designer to design the palettes, and the designer explained that the palette design was the least of his problems, he would have to have quite a lot of information regarding materials and process before dealing with the design. And they didn’t talk to each other for the majority of the time, exchanging non communicating e-mails till the last week. When I asked to see what was happening, I realized where they were and it was too late to act.

Relationship with the designer – The group didn’t fit their designer into the strategic decision process nor did they make him a part of the tactical response.

Results – The group (the two students that led the project) went forward to defend it and blamed the designer for not wanting to do his share of the work. One of the external invitees was a sustainability expert and she blasted the project away because of its narrow vision of the impact the whole system would have. In the end, this was the group I had the longest talk with, and I made sure everyone involved understood what went wrong

Group FOUR – Voice2text opportunities

Workflow – This was an interesting group because it was a project where the designer was omnipresent. From start they wanted to know more about voice2text and it was Ana Pessanha who identified experts in the field in a local college and went and interviewed them. It was also the designer that led a visual benchmark and presented them with the state of the art of speech technologies and business ventures in the market. It was also the designer who presented them with several business ideas, based on criteria like technology maturity, market entry complexity, potential partnerships and possible hardware + software platforms like iPod + iTunes. She then went on to design and dirt prototyped some wonderful gadgets for a solution aimed at people sitting in traffic jams. Of course, she spent a lot more than the five days I told her to allocate to the project, and the student group ended up relying too much on her effort.

Relationship with the designer – The designer fit so well she almost ran the group.

Results - It was the most achieved and complete project of them all. In the end, the economics could be slightly off, and the distribution strategy was not the ideal, but the project was the one that captivated most of the attention of the students and invitees

KML: After the second module when the students presented their projects, JSM and his invitees (none of which were designers, but rather his long-time work collaborators) critiqued and debriefed the groups. We solicited formal evaluation and open-end comments of the design project module from the participants. It was encouraging to learn from their the remarks that the participants really liked their experience in this training module and that it had turned them to experiment more with design and to involve more designers in their work. They were also frank to state that they all had misconceived ideas about design and that design proved to be a much more powerful tool than they had anticipated. The participants' formal evaluations of the module and ranking relative to the other modules of the course were encouraging. We called JSM a week later and invited him to repeat the program again in 2008.

JMS: Having received the news of the second edition of the course, I told the coordinators that I wanted to design the modules slightly differently and change a few things based on my learnings. Apart from analyzing the formal evaluations by the students of 2007 edition of the course, I took some time to ask both the students and the designers what they thought about the experience. I asked the students 5 questions:

- Did you feel that the project was useful for you and your group alongside the training?
- Do you think the possibility to use industrial designers was important in this process? Did it allow you to improve your deliverable?
- The designers involved were industrial designers and not from another area. Was this an important and determinant feature for you? Could it have been different otherwise?
- Did the designers participate in the strategic decision process?
- Was the training and documentation I gave you in the first session helpful?

The replies were encouraging and they gave me a lot of inputs to improve the program:

- All students stated the project concept was good, differentiating and enjoyable;
- All students stated the presence of the designer was good, that they helped materialize their vision and fulfill their expectations, some of the group members stated they included the designers in the strategic process decision;

- Some stated that the relationship among the designers and the students should have been better outlined from start;
- A few questioned if the invited designers should have been more flexible, rounded up designers, not necessarily industrial designers;
- They all thought there should have been better coordination between me and the other teachers, ensuring better knowledge integration;
- They all complained they didn't have enough time to work among themselves and that more time from the designers was needed;
- All students complained they took too long to start with the project;

The designers stated that they thought the challenge was great but that they still hadn't the chance to demonstrate to the groups that they could be a part of the strategic decision process. Below two of the designers' statements:

"In my case, I think the working group needed to understand design as a strategic methodology instead of a rendering device, giving a strategic rather than tactical use of this discipline.

The approach of design comes, to professionals such as the students, not as a differentiating tool in Product Development, but as a visualization accessory. Design is viewed as an extra cost, and not as the basis of PD and R&D.

The solution will definitively be, educating and co working such programs, giving both sides opportunities to create awareness and share responsibilities in both strategic and tactical PD."

Leonardo Springer (the designer in the group that didn't go well...)

"The initial concept of this project was very alluring - work with professionals not used to the strategic services that a designer can offer and make them understand the creative potential that we can put into different stages of a project. It's without a question a very good strategy to create ties between us (designers) and other professionals, who can then implement a design culture into the business world. I'm very proud I took place in this initiative."

André Gouveia

I went through a process of systemizing those learnings and identify all the improvements that needed to be put in place for the February 2008 program, which has already started. This is a list of the improvements and changes we are implementing:

- Product development modules order have changed, the first one is earlier in the program, the last one is the closing module;
- We had a preparatory meeting with all teachers where we explained what was the project concept and what was expected of them;
- We agreed to position the project as a means to include all information passed on by different syllabus, and reinforced the need to think through the

project from A to Z, focusing much more on the process than on the creativity / quality of the idea generated;

- One of the course coordinators assumed the responsibility to for the groups balancing the student's background and experience;
- The project themes would be chosen within a set framework, we instigated them to brainstorm within the group and direct them to places in the Internet where they could find further ideas;
- Teams would have to choose themes that were outside their group company and product/project scope, extending their horizons outside their day-to-day business;
- I prepared a template with detailed information about what was expected from them regarding the project, level of interaction desired and expected with the other modules, instructions on the project preparation for the last session;
- To make sure everyone is aboard and on time, we proposed an interim check-up;
- I decided to use the same 4 designers as MIR'07, this time they will be paid for the effort and dedication, and they will be evaluated by the students.
- I had a long working session with them before the beginning of the program, and I invited them to be present in the first session to meet groups face to face;
- I am managing the groups and the designers more closely, to make sure there are no surprises and that the level of work and result is homogenous;
- Presentations in the last session will follow the same routine as before – each presentation will take 20 minutes, involving the whole group. At the end there will be a period for discussion, the session will last 3,5h;
- I will invite an external manager (FCEE Alumni) to come in and comment on what is presented;

I am sure it is not all going to go well. Maybe in 2010 we will all be satisfied with this experiment of introducing design thinking into hard core practicing managers at the top business school in Portugal. Right now we are seen as “the problem child” within the institution, I hope that changes with time.