

COLLABORATION BETWEEN THE DESIGN INDUSTRY AND DESIGN EDUCATIONS MANAGED BY A THIRD PARTY ORGANISATION

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ABSTRACT

Setting up collaborative projects with companies and design educations can be a time-consuming task for academic staff and the industry partners when planning the projects and handling delicate matters such as IPR, NDA's and economic aspects. In this paper, the authors present and analyze an initiative that has been running for 12 years, where an independent organisation set up and run different collaborative projects involving design educations and companies. The paper presents the most significant results and findings from the initiative that involves a diversity of Danish design educations and companies. The authors discuss the main obstacles when setting up such collaborative and cross-disciplinary projects and the advantages of involving a third party.

Keywords: Organizing design collaboration, design education and the industry, third part and collaborative design projects, design students and industry

1 WHEN COMPANIES AND DESIGN EDUCATIONS COLLABORATE

Collaborative projects involving companies and design schools are a popular trend in a global perspective where more and more universities strengthen their design programmes while the business world benefits from the creative and intuitive process of the designers. This is not a new phenomenon, though, and different collaborative principles have been tried out in various countries [1], [2], [3], [4]. A global survey on collaborative design projects [5] revealed that such collaborate initiatives are highly valued by universities around the world and that most of the responding universities expected to set up collaborative projects with external partners in the future.

The design teachers found such collaborations to be advantageous when dealing with matters such as: developing methods and tools in general, gaining knowledge in general, developing communication tools and cooperation skills, understanding the profession, understanding the business and the market, understanding the economic aspects and creating a better study environment [6].

The survey [5] revealed that most of the university teachers found 'cooperation in general', 'agreements/contracts in general' and 'the time frame and rights' (IPR) to be among the critical issues when organizing and running collaborative design projects. Some respondents mentioned that 'making the results known to the public is a 'big problem'.

Hence, it can be difficult to agree upon conditions regarding matters such as time frame, confidentiality and intellectual property rights. The university supervisor as well as the contact person in the collaborative company can find themselves in a stressful grey zone [7], where they challenge formal regulations or cultures in their organisation while using a lot of extra time involved in organizing the project itself.

The situation might therefore call for a third party to handle these issues and this paper describes and analyzes such a collaborative construction, named LDC.

2 HELP FROM A THIRD PARTY ORGANISATION

Lifestyle & Design Cluster (LDC) www.ldcluster.com is a non-profit organisation established in 2002 as a Regional Centre for Furniture and Wood. In 2009, the initiative became an Innovation Network under the Danish Ministry of Higher Education and Science, and today it is based on a network of

around 300 committed companies within the furniture and clothing industries and 12 knowledge partners including design educations. LDC works to promote innovation and sustainable growth in small and medium-sized interiors and clothing companies as well as the creative industries. Besides setting up seminars and conferences, LDC also sets up projects involving companies, universities and schools that offer programmes within a variety of design disciplines ranging from fashion- and furniture design to industrial design. Such projects always aim to create shared value and concrete benefits and learning's for all stakeholders involved by establishing design projects with specific goals, a clear distribution of responsibility, a fixed budget and a precise time frame.

The general intention is to introduce companies to the value of design and designers and for the design students to practice their skills in a realistic setting with a real company and with realistic constraints and intentions from the industry. The company often gets new product designs to market and the design student gets a job in the same company or acquires experience and references that lead to a creative job in another company. Traditionally, new designers would begin their career as junior employee in a design oriented manufacturing company or in the consultancy business. However, for the last decade, new designers have had trouble getting their professional careers started and companies are in need of creative input and competences to stay competitive. LDC therefore, established the Design Boost Concept where a graduate with a fresh, new diploma can be paired up with a company that needs design assistance. This way LDC at the same time boosts the graduate's career and the company's product portfolio.

LDC's main palette for setting up fruitful project collaborations between design students/graduates and companies include these three concepts:

1. **Innovation Cup:** A company is matched with a group of design students.
2. **Talent Programme:** Five companies are matched with their team of handpicked students teamed up across four different design educations.
3. **Design Boost Match:** A company is matched with a newly graduated designer with competencies matching the company's identified design needs.

3 FROM INNOVATION CUP TO DESIGN BOOST MATCH

Each of the concepts can be described as follows:

Innovation Cup – description

A company defines a design challenge they do not have competencies to pursue in-house. LDC helps to create a specific design brief and finds a matching design education where the project can be the focus for a full semester. The students work to find the best solution to the brief. It is a competition with two evaluation seminars where company representatives participate along with the university project supervisors (fig.2). The students earn grades for their projects when examined at the university and afterwards they present the outcome to the partner company, and prizes are awarded to the winning teams or individuals.

Innovation Cup 2015 - case

In this Innovation Cup from 2015, 42 students from Aalborg University (AAU) in their first semester of the International Master in Industrial Design were divided into ten groups. Each group was to develop products to expand the product portfolio of CUBE Design a/s (a medium size office furniture manufacturer) with focus on flexible office space. As a start, LDC identified the right type of company to match the AAU curriculum. Together with the company CEO, LDC developed a design brief: a short description of ten different user/context/market-combinations (one for each group) and requirements regarding manufacturing etc. The student groups developed and presented product proposals at evaluation seminars with company representatives across the semester. LDC initially formulated a collaboration agreement that was signed by CUBE and the project coordinator from AAU to align expectations of company involvement, content of the final project and process. Also conditions regarding Intellectual Property Rights (IPR) and Non-disclosure Agreement (NDA) were part of the agreement.

In this case, the winning concept, CODY, was purchased by CUBE and presented three months later at an international furniture fair and is still in production in 2018. (fig.1) The fact that the conditions for handing over the winning project to the company were already set by LDC was crucial due to the tight time slot from the students' presentation to selling CODY at the fair. Innovation Cup is funded by TUUF (a Danish development and educational foundation within the wood and furniture industry).

The Talent Programme – description

The Talent Programme is a variation of the Innovation Cup. Five companies are matched simultaneously with their team of handpicked students from different higher educations. The students are organized in groups across universities. They do not know each other beforehand and have to set up a long-distance collaboration working with the company in their spare-time, as the Talent Programme is not part of the official curriculums. The Talent Programme is a competition between the groups. An external jury decides who wins the prize. LDC helps define the briefs that differ from company to company; the basic conditions, however, are the same when it comes to IPR, NDA, scheduling and final presentation. The company agrees to develop a 1:1 prototype of the product proposal, which calls for close cooperation between student teams and companies. (fig.2) The Talent Programme is funded by The Danish Ministry of Higher Education and Science

The Talent Programme 2016 – case

In 2016, the annual Talent Programme involved five companies, four different design educations and 20 students studying design or design culture. LDC selected five companies and framed the collaborative structure and the rules concerning IPR, NDA etc. and developed individual design brief with each company. Each school was asked to find five ‘talented’ students (one per company). A kick off was arranged at each company with their handpicked team of students. During the process, each company had close collaboration with their team including evaluations with appointed supervisors from the involved educational institutions. After four months, all groups presented the new products including full scale prototypes (developed together with their companies) to the jury. Some companies stated that they primarily participated to try to work with different types of design students to see their working methods. Some wanted concrete ideas for new products and one company planned to finalize the product for market together with the students. (fig1)



Figure1. Results from the Innovation Cup case (2015), The Talent Programme case (2016) and the Design Boost case (2015)

The Design Boost Match – description

The Design Boost Match differs a bit from the other collaborative models. Again, the company defines a task, but in this case the idea is to match the company with a newly graduated designer who has not found a job yet. LDC helps the company to create the design brief and sends it via a variety of design educations to new graduates. They send their resumes and a short application to LDC, who picks the best match and invites the applicant for a start-up meeting with the company. The graduate is paid three months’ salary / half time to work with the brief. Preferably, the company should have no or minor experience with collaborating with a designer, so they through this collaboration learn how a designer can add value to the company via concrete new ideas and become familiar with a potential future employee or collaborative partner. The graduate gets the chance to use their competencies on a real task and gain experience from the industry, while building a stronger resume (fig.2). Expectations to royalties and conditions for collaboration are taken care of by LDC up front with mutual agreements signed before kick-off. Design Boost Match is funded by TUUF foundation.

Design Boost Match – case

Spekva A/S is a high-end manufacturer of wooden tabletops for the kitchen industry. They had started to develop dining tables to sell through their retailers throughout Europe. Therefore, they needed new designs for dining tables in solid wood. LDC helped them create a specific design brief. Via their contacts to design educations, LDC received applications from several newly graduated designers and picked the best match – a designer with profound knowledge of solid wood.

During his education, Anders Engholm had started a furniture design studio together with a fellow student, so this was their chance to kick-start their professional career. A start up meeting with Anders and Spekva A/S was arranged by LDC, where the expected outcome was discussed and a collaboration

agreement including conditions regarding IPR and NDAs was signed. LDC handled employment and payment. After three months Anders' design studio had come up with seven different table designs and four of them were set into production and are still on the market in 2018 (fig.1). Spekva A/S and Anders are still working together today.

4 COMPARING THE COLLABORATIVE CONCEPTS

We have described the three different initiatives in a matrix where the topics structure, duration, economy, learning outcome are described.

	Innovation Cup	Talent program	Design Match
Structure	One company matched with student teams or individuals. Part of their semester.	Five companies matched with teams of students across design educations. Not part of semester curriculum.	One company matched with one graduate. Paid work halftime for three months.
Duration	2-4 months	4 months	3 months - half time
Economy	External funding (TUUF Foundation) pays for: project management, project expenses, prizes, dissemination of results (press releases, cases).	Part of LDC's budget funded by The Ministry of Science and Higher Education and covers: project management, prizes, transport, dissemination of results (press releases, cases).	External Funding (TUUF Foundation) pays for: project management, three months half time salary, dissemination of results (press releases, articles, case catalogue).
Learning outcome	Design Educations: Easy access to companies for collaboration. Little administration time. Focus on learning aspects for students.	Design Educations: Easy access to companies for collaboration. Knowledge sharing across educations, different methods and focus.	Design Educations: A chance to help their graduate onto the job market.
	Students: Easy access to real industry experience - how to overcome company-related challenges, commercial insight.	Students: Easy access to real industry experience - how to overcome company related challenges, commercial insight. Knowledge sharing, network.	Students: Easy access to real industry experience. Potentially a job, product on the market. Building CV and boosting experience and confidence.
	Companies: Easy access to collaboration with relevant students and design educations. Insights into designers' work / how they can add value to companies via new products. Several new product ideas.	Companies: Easy access to collaboration with relevant students and design educations. Insights into different designers' work methods, and how they can add value to companies. One new product idea.	Companies: Easy and free-of-charge access to collaboration with relevant designers, handpicked for their challenge. Potentially new products and new collaboration partner.
Third party's role	Securing funding and economical reporting to funding organisation.		
	Identify company needs and develop design brief together with company.		
	Coordinate with relevant design education - timing, content focus - match.	Coordinate with educational institutions.	Send design brief to relevant educational institutions.
			Recruiting and match.
	Plan and facilitate kick off meetings, project management.		
	Facilitate signing of collaboration agreement incl. IPR, align expectations, process plan etc.		
	Participate in midterm critiques.	Participate in midterm critiques.	
	Responsible for prizes, diplomas, and dissemination of results.	Responsible for prizes, diplomas, and dissemination of results.	Overall responsible for employment contract and dissemination of result.
Evaluation.			

Figure 2. Comparing the Innovation Cup, The Talent Programme and the Design Boost

5 COLLABORATION AND DIVERSITY

The three concepts have been developed and refined over the years and seem to address the needs of a variety of design educations and companies as most of the Danish design educations are involved in one or more collaborative models. Also, the companies involved differ in size from 5-250 employees. The Innovation Cup is a valuable concept for matching design educations with companies that are in need of new ideas and will typically run during a full semester at a design education.

The Talent Programme is a popular concept among the companies as they get a team of handpicked talents to collaborate with. It is inspiring for them to see how the different educations focus and work and they get to know talented designers that they may choose to work with afterwards. Not all design educations can fit an Innovation Cup into their curriculum but via Talent Programme they can give some of their students the experience of collaborating not only with a real company but also with talented students from other educations.

Design Boost Match is the most expensive concept but a highly rewarding concept for both company and graduate. This is the right concept for companies with a very specific task that needs specific competences and where the matching designer can handle all aspects of the development process. It is important that the company is not too small - it should have the resources to both collaborate, develop prototypes and the muscle to market the new products. The concept is a safe way for graduates to gain experience and test themselves and for companies to find new collaboration partners.

6 THE ROLE OF THE EXTERNAL COORDINATOR

Due to LDC's main purpose as bridge builder between companies and academia, they understand the needs of both the industry and the educational institutions, understand their different roles in society and are able to communicate this to both parties. The fact that the innovation network has been running several years means that they have built credibility and trust from all parties, which is paramount for setting up rules and expectations for collaboration between industry and design educational institutions. LDC as a neutral and non-profit facilitator ensures that both parties' concerns are addressed and taken care of. LDC proactively facilitates the whole cooperation process and ensures a realistic time frame. Collaboration agreements are presented at the very first meeting with companies so they know the formalities regarding IPR and conditions for collaboration from the start. LDC is also responsible for disseminating results of the collaborations via newsletters, websites, cases, press releases and sometimes also short promotional films.

7 FINAL COMMENTS

Involving a neutral third party in order to find the right matches and to facilitate both formalities and process flow seems to minimize the obstacles that often occur in collaborative projects around the world [5]. From this perspective, it is worth noticing, of course, that such a service would probably be difficult to run without government support and private funding. The success of the initiative therefore also stems from a national policy to support the creative industries [8], and from a collaborative attitude among the Danish design educations, the companies and their organisations.

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