

THE DESIGN MANAGEMENT EDUCATION IN BRAZIL: A QUALITATIVE ANALYSIS OF SIX UNDERGRADUATE COURSES

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ABSTRACT

The insertion of design management has increasingly become a discipline that helps companies to remain competitive in their markets, through the increase in quality, launching and improvement of products and services with added value and the creation of competitive strategies. Design and management have become areas that unify their efforts for the achievement of strategic and organizational goals. Design management is still a subject of little familiarity to Brazilian business people, but the designers themselves are also still learning this concept. This article is intended to analyze how disciplines associated with design management are approached in six undergraduate design courses in Brazil. The curricula and the syllabuses have been analyzed in order to perform a comparative study among the disciplines that approach management concepts and other areas of design.

Keywords: Design management, design education, design graduation

1 INTRODUCTION

The use of design management is a factor that helps companies to remain competitive in their markets, through the increase in quality, launching and improvement of products and services with added value, in addition to the creation of strategies that increase their competitiveness. In a global market, competitive differential has become a need for companies of all sizes, and imposes on them processes of continuous improvement in their products and services, by acting strategically and aiming at innovation as a competitive factor [4].

Through design, companies must be capable to communicate, expose and value their positioning, values and strategic goals to both the internal and external publics, and design must also be at the service of the development of new products and services for the companies. The use of design as a strategic asset for the companies is the result of a natural evolution of this area. Projects need a broader vision, and should not focus only on the product, but on the whole of its value chain - the consumer and his or her experience, the market and communication -, thus increasing the complexity and the number of factors to consider within a design project. The abilities to think systematically and strategically will be competencies that will be more demanded from professionals. The result of design is not the merit of designers alone, as the production of objects is done in an industrial manner; hence objects become the object of study by professionals of the areas of Engineering and Management [6]. This is the environment where design management emerges for designers, as a form of qualifying the professionals before a market that requires multidisciplinary and especially strategic knowledge. This new knowledge emerges to prepare the professionals to use the "business language", i.e., to be able to discuss strategy with business people, making their discourse evolve from the tactical and operational management levels to the strategic level of the companies.

Business people will only put value on design when designers know how to position themselves as a strategic tool for their business, by trying to achieve along with them the strategic goals of the company, and not only by solving the problems in a "beautiful" or "creative" manner [12]. The difficulty of relationship between designers and managers arises from the lack of preparation of the design professional, he or she suffers from not being qualified to act before the challenges of present-day industry [1]. Designers must be prepared to act both in their offices and in the board rooms of the

companies they work for [3]. Design Management is a tool whose function is to enable the designer to act in this present market.

This article is aimed at analyzing how the disciplines related to design management are approached in six undergraduate courses in design, in Brazil. Through a qualitative research, the curricula and the syllabuses of the disciplines were analyzed in order to perform a comparative study between the disciplines that approach concepts of management and other areas of design. Through interviews with course coordinators, we also tried to assess the importance of the study of management in relation to other areas of design.

2 DESIGN MANAGEMENT

The Design Management Institute defines design management as the business face of design. Design management includes the processes in progress, the business and strategy decisions that allow innovation and the creation of effective design in products, services, communications, environments and brand names that improve our quality of life and provide organizational success. At a deeper level, design management is aimed at uniting design, management and customers in order to offer competitive advantages through three base lines: economical, social / cultural, and environmental. It is the art and science for the qualification of design that promotes the collaboration and the synergy between "design" and "business", thus improving the effectiveness of design.

Borja de Mozota [10] defines design management as the formal implementation of design into the policies of a company, as a long-term plan to achieve the goals of the organization, as well as the coordination of all resources of design in favour of institutional goals, having its origin in Great Britain, during the 1960s, as an area that studied the way the relationship between the design office and the contracting company was managed.

Design can be applied in all organizational levels. At the strategic level, decisions are made that affect the whole identity and positioning of the company. At the tactical level, the determinations of design affect the means of coordination of projects in progress. Now, at the operational level, changes are effected in a manner of conceiving the design project itself. The operational level is the first step toward the integration of design within the company [10], i.e., by means of a well-effected project, the culture of design starts being created within the company.

In Brazil, design management is still a novelty for the business people, who show little or no knowledge of the concept, the methods and the benefits to be obtained. Part of this problem is the responsibility of designers, who also are learning little by little the concepts and methods of implementation of design management in the companies [11]. Under this perspective, this article aimed at a comparative study among six undergraduate design courses in Brazil, in order to measure the level of teaching in design management, in comparison with other areas of design study.

3 GRADUATION IN DESIGN IN BRAZIL

This recurrent importance given to design by the companies, as a way to generate competitive differentials for their products and services, caused the number of teaching institutions to multiply in the whole country [8]. Education in design in Brazil has a recent history, that started with the ESDI (Escola Superior de Desenho Industrial - Higher School of Industrial Design) in 1962, in Rio de Janeiro, by the governor at that time, Carlos Lacerda. Its installation did not arise from social needs, but rather from political interests which, in order to meet the urgency of the moment, chose to import a European school model, having chosen the ideas, curriculum and ideology of the *Hochschule für Gestaltung*, the school of Ulm, in Germany [7].

In the academy, the students have the opportunity to explore their knowledge in practice, especially in the disciplines of design. Some institutions even promote meetings with business people, thus offering their students the opportunity of designing for real needs, and by doing so, they reduce the distance between academic projects and professional projects.

One of the missions of the design courses is to qualify multidisciplinary professionals, capable of keeping in contact and developing projects involving the whole production chain (company, supplier, target-public). The Conselho Nacional de Educação (National Education Council) [2] defines that the professionals graduated in undergraduate Design courses should possess abilities and creative processes, a capability to express ideas in concepts and projects in their own language, a capacity to participate in multidisciplinary teams, knowledge of the different stages of a project, and to view it in a systemic manner, knowledge of the productive sector in which they specialized, in addition to a

historic and prospective view. According to data taken from the website of the Ministry of Education, today in Brazil there are 253 teaching institutions offering design courses, in the most varied abilities – graphic, product, web, and fashion design, among others.

The combination between design and business is becoming a trend in both companies and universities in North America and Europe [9], as, for example, in the schools of business of the American Kellogg School of Management at Northwestern University. These new programs integrate the concepts of management, operation and design, instructing their students to design from the concept to the execution of innovative solutions. Brown (2010) reports on the cases of MBA studies of three American institutions - Hasso Plattner Institute of Design at Stanford, the Haas School of Business in Berkeley and the Rotman School of Management of University of Toronto – where students, in their majority graduated in administration and business, get directly involved in design projects.

The article “*Managers and Designers: two tribes at war?*”, mentioned by Von Stamm [13], justifies that the distancing between designers and managers has its origin in the academic qualification. While designers have disciplines on design during their graduation that emphasize creative thinking, manager have their qualification focused on analytical and rational disciplines. A table of differences between designers and managers was produced, which is reproduced below:

Table 1. Differences between Designers and Managers

	Designers	Managers
Goals	<ul style="list-style-type: none"> - Short term - Quality in product or service - Reform - Prestige - Career building 	<ul style="list-style-type: none"> - Long term - Profits - Sustainable growth - Organizational duration
Focus	<ul style="list-style-type: none"> - Objects - Environment 	<ul style="list-style-type: none"> - People systems
Education	<ul style="list-style-type: none"> - Visual arts - Geometry 	<ul style="list-style-type: none"> - Accounting - Engineering - Numerical
Style of thought	<ul style="list-style-type: none"> - Holistic - Lateral - Synthesis - Orientation toward a solution 	<ul style="list-style-type: none"> - Linear - Analytical - Orientation toward the problem
Behavior	<ul style="list-style-type: none"> - Optimistic - Innovative 	<ul style="list-style-type: none"> - Pessimistic - Adaptative
Culture	<ul style="list-style-type: none"> - Diversified - Experimental 	<ul style="list-style-type: none"> - Conformist - Careful

Based on the difference between the education in design - turned toward creativity, arts and experimentation – and the education in management – with emphasis in rationality, accounting and linear thought – and understanding that in the present context, designers need to have knowledge of management in order to facilitate their approach to the managers, as well as to improve the level of the projects carried out, by leaving the sphere of merely "beautiful" designs and moving towards projects strategically adequate to the needs, this article was produced to investigate the functioning of six undergraduate design courses in the state of Rio Grande do Sul.

4 RESEARCH

For this study, the six design courses located in the metropolitan region of Porto Alegre, due to the importance of this region in relation to their state. The first stage of the research consisted of a curriculum analysis of each one of the institutions, in order to measure the amount of class-hours that every curriculum offered, with disciplines aimed at management. At a second stage, the coordinators of each graduation course were interviewed in an attempt to understand the importance their courses gave to the management disciplines.

It should be pointed out that for first stage of the research only mandatory disciplines were considered, and the optional disciplines and other activities were disregarded in the accounting. Some of the

coordinators also mentioned the disciplines on design as related to management, but, for this study, these were also disregarded in the accounting. Even though we understand that these disciplines are related to design management, only theoretical disciplines were selected for this research. The result of this research is illustrated in table 2 below:

Table 2. Researched teaching institutions

Institution	City	Class-hours and Mandatory Disciplines	Class-hours Disciplines of Management	Total Class-Hours X Class-Hours for Management Disciplines Ratio
UFRGS	Porto Alegre	3270	780	23%
Ulbra	Canoas	2414	340	15%
Espm	Porto Alegre	3862	215	14%
Unisinos	Porto Alegre	3200	280	9%
Feevale	Campo Bom	2640	164	5%
UniRitter	Porto Alegre	2793	72	3%

For the coordinator of the design course of UFRGS, the presence of management disciplines in the graduation in design are important for the student to become familiar with the challenges in the professional market. In the curriculum of UFRGS, the one that showed to have the highest number of disciplines related to management, as compared to the others, it is possible to find disciplines related to Marketing, Communication, Entrepreneurship, Production, among others.

The coordinator of the design course at Ulbra, pointed out that the institution strongly prepares its students for the work market, and in addition to the graduation in design, the institution offers four options for technologists in specific design areas. In the curriculum of Ulbra disciplines related to Professional Practice and Economics stand out.

ESPM – Escola Superior de Propaganda e Marketing (Higher School for Advertising and Marketing) – shows a strong integration with the market through incubators and the partnership between the junior design corporation and the administration course. The coordinator of graduation states that “the relationship with the market is in the DNA of the course”, where disciplines in Marketing and Finance are recurrent.

The design course of Unisinos has a clear focus on Strategic Design, as the course coordinator points out. The six design disciplines add up to 920 hours of design projects with the purpose to value strategic design, while working with the system-product concept – product, service, communication and experience [5]. These design disciplines were not considered for this study, only the disciplines related to Marketing and Corporate Management were considered.

The coordinator of the course at Feevale, also pointed out the strong emphasis in preparing the students for the market, as the course was created to meet the demands of the region where the course is located, the main leather and footwear production centre in the state. Thanks to this preparation of the students for the market, the disciplines related to management have a small amount of class-hours, as compared to the remaining disciplines.

On its turn, the design course of the Centro Universitário Ritter dos Reis – UniRitter, showed the lowest number of class-hours of management disciplines, through the disciplines “Marketing I” and “Management of graphic/product design”. For the coordinator of the course at UniRitter emphasis is on the disciplines of projects, so that the UniRitter student is a "specialist in projects". He also states that the course has the highest number of class-hours in design, as compared to other institutions. Based on this information, one may say that the emphasis of the UniRitter course is on the administration and operational level, and deals only with the project level.

All coordinators were questioned on which is the importance of the management disciplines, in relation to the remaining disciplines, in a numeric scale from 0 to 10, and the result is illustrated in table 3 below:

Table 3. Answers of the course coordinators

Institution	What is the importance of the management disciplines in relation to the remaining disciplines? (Scale from 0 to 10)
UFRGS	8
Ulbra	7
Espm	8
Unisinos	8
Feevale	5
UniRitter	2

It was a consensus among all coordinators that the disciplines related to management are extremely important in the qualification of the students. In the interviews with the coordinators of Feevale and UniRitter a low importance of these disciplines in relation to other disciplines was also noted, which was justified by the coordinators thanks to a strong preparation for the work market, but only to work on projects, thus excluding the global vision that the concept of design management defends. Another interesting piece of data extracted from the interviews was that, in spite of the fact that the course considers the management disciplines important, students quite often do not value them, as they prefer to dedicated more to the project disciplines, as they generate works for their personal portfolios, thus helping them to obtain internships.

5 FINAL CONSIDERATIONS

The main goal of this research was to investigate how the six undergraduate courses approach subjects related to design management in their curricular grids. The interviews with the coordinators served to confirm the information collected through the research done in the curricular grids, in addition to verifying the perception that these have on the relationship between the students and the disciplines that approach design management. It was also proven that the number of class-hours of disciplines dedicated to management is still low. Also, we have noticed a strong incentive for projects in some of the courses, i.e., an activity at the operational level of design.

The undergraduate courses should try to modify the present situation: teaching of design management is still recent, but should evolve along time. It is important that the courses approach design from the strategic point of view. Newly graduate students should be capable of designing solutions for their clients that are appropriate for their businesses, and not only an aesthetically interesting solution, but rather a solution that approaches the product or the service, the communication and the strategy of the company, its brand name, its values, the consumers and their experience of usage, the environment, among so many other factors that have become the responsibility of the designer.

Awareness of the undergraduate courses in terms of better preparing their students for the present labour market is necessary. Designers have shown difficulties in relationships with professionals in the areas of management, as has already been mentioned in this article, due to their distancing in academic graduation. A union between both areas is necessary, it is important that design professionals have knowledge of the language of managers, the designer cannot base his work only on his or her creativity and artistic ability. This conveys to the client the idea that design is only used to "beautify" the product. Questions like marketing, strategy, positioning, competitiveness must be as natural to designers as typography, colours, materials, and ergonomics, among others.

It is the function of the institutions to qualify students prepared for the labour market. The labour market looks for design professionals that have the ability to work strategically, to generate competitive differentials for the products and services of their clients. Apparently this is a reality only of the market, but should be instituted in the undergraduate courses, through the inclusion of disciplines related to design management into the curricula, thus improving the qualification of their students and preparing them effectively for the present labour market.

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