

Chapter 16

DSIGN4CHANGE: 4Ps for Improving Management Education

Lee Schlenker and Sébastien Chantelot

Abstract Despite the increasing attention given to educational technologies in business schools, the structure and objectives of management education have evolved little over the last several decades. Building upon the foundations of the long-standing critiques of business school education and the potential for student-centric learning, the authors propose that the use scenarios deployed in DSign4Change™ can significantly improve the learning experience. The authors discuss how this vision can positively impact management education by focusing on the 4Ps: Place, Platform, People, and Practice. In the conclusion to the article, the authors review the challenges and outcomes of their recent work in business and executive education in France and Great Britain.

Keywords Design thinking • Management education • Learning technologies • Pedagogy

1 Introduction

In the following pages, we argue that DSign4Change offers a fundamentally different approach to improving the quality of business school education. We begin our discussion with a quick review of current critiques of business education. We then explore the relevant tenets of design thinking to pinpoint the processes and the methods that can address these shortcomings. We conclude with an exposure of our own practice in business schools, ExecED, and corporate education.

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Mourshed et al. (2012) found that 74% of European educational providers were confident that their graduates were prepared for work, but only 35% of employers agreed. Various authors have well-documented the long-standing issues with management education in general and the MBA in particular (Dunne et al., 2006; Mintzberg, 2004; Pfeffer & Fong, 2002). These challenges hinge as much on the pedagogical choices that have been made as the reluctance of business schools to adapt their programs to new market challenges. To what extent can DSign4Change offer business schools an alternative vision for management education? Let's review a number of these issues to contextualize the value proposition of Design Thinking.

2 Pedagogical Challenges

One principal issue with business school education is its reliance on case study methodology that favors the notion of one best way. Culpin and Scott (2012) note that traditional case studies are most often sterile, impersonal, outdated, and subject to instructor bias. Case study methodology by its very nature favors normative prescriptions rather than depicting the complexity of real-life conditions in which companies succeed or fail. Most industries and markets today are not characterized by clearly defined problems and readymade solutions, but by challenges (declining profits, underemployment, engagement, etc.) in which understanding the nature of the problem is the major hurdle.

Another issue deals with the choice of business disciplines that focus on a limited number of analytical skills and competencies. The skills needed to address multitude of business challenges, ranging from hypercompetition to dealing with mass personalization, are often missing from traditional programs. Bennis and O'Toole (2005) claim that the focus of graduate business education has become increasingly shortsighted—and less and less relevant to practitioners.

A third objection addresses the inability of most programs to account for the uncertainty that characterizes most markets today. Snowden and Boone (2007) suggest both that most business problems requiring inductive or deductive reasoning have already been solved, and that the complexity of the problems that linger require different forms of decision-making. Whereas most business programs privilege inductive or deductive reasoning, neither is associated with the third level thinking associated with innovation.

A fourth criticism revolves around the project work given in class and out, which emphasizes an unrealistic view of teamwork. Roger Martin of the University of Toronto suggests that we teach a narrow form of collaboration involving finding someone with similar interests and then working together (Dunne et al., 2006). This approach has little in common with corporate practice where physical meetings are expensive, time-consuming, and often very difficult to arrange. In the modern workplace, managers are continually struggling with discontinuous time, competing on different agendas, and being evaluated on work accomplished outside the meeting room.

In a similar vein, the notion of productivity has changed. Sinofsky (2013) suggests that traditional visions of management based on hierarchy, top-down decision-making, and strategic planning are dubious mirages in markets flattened by the presence of ubiquitous information, connectivity, and mobility. In this view, productivity can best be studied today in gauging a manager's ability to act effectively upon real-time information.

Finally, teaching methods favor analytics rather than practice. Students who lack the experience to properly analyze and contextualize working knowledge poorly digest the codified, abstract premises that provide the staple of most management education programs. Mintzberg (2004) argues vigorously that teaching MBA students best practices won't help them learn how to manage. Organizations are complex phenomena. Managing them is a difficult, nuanced business, requiring all sorts of tacit understanding that can only be gained in context.

The introduction of learning technologies has done little to address these challenges. The progressive introduction of Learning Management Systems, MOOCs, and now mobile applications has failed to address the pedagogical challenges to management education. By simply mirroring existing courses and approaches, learning technologies have often amplified the challenges in providing more effective designs to learn about business.

E-learning pushes students out of the classroom, but it doesn't remove the need to take into account the context in which students learn. Context itself is a shell—learning not only occurs in a context, it creates context through the qualities of interactions between students and their professional environments (Sharples et al., 2007). In short, the pedagogical value of learning technologies isn't found in the applications themselves, but in how students, faculty, and organizations use these technologies to engage with their professional communities.

Attempts to improve digital technologies without accounting for the specific nature of higher education appear as ill-fated as efforts to improve the classroom by limiting or banning the use of mobile phones, tablets, and personal computers in class. The two are inherently intertwined in the modern classroom—we can't keep telephones out of the classroom not more than we should keep the classroom out of technology.

Many examples of learning technologies today try to mimic the conditions of either the classroom environment, or the workplace without taking into account the specific constraints that each environment imposes. The nature of both the work and learning places—the vision, the space, the participants, and the outcomes—go a long way to explaining the challenges of doing real work in the classroom, and effective continuous learning at work. The goal of technology might best be served by not reproducing either place but by providing a bridge between the two where real-life business challenges can be brought to school, and learning outcomes can be rapidly applied in the workplace.

To date learning technologies have simply relayed the inductive or deductive logics inherent in business education. Whether they integrated multiple choice exams or discussion around business cases, learning technologies have rarely helped elucidate the nature of wicked problems. As we have argued previously, one of the

critical success factors for learning technologies are engaging the students, retaining their attention, motivating them to invest in the experience at hand, and encouraging the physical application or reproduction of targeted skills (Schlenker, 2014).

3 Design Thinking

Design thinking challenges the assumption of business as usual in order to create new connections (Brown, 2009; Melles, Howard, & Thompson-Whiteside, 2012). Design thinking encompasses the mental processes that are commonly used to design products and services. The associated process begins by analyzing behaviors and motivations, and then integrates the technical, financial, and commercial considerations that shape the life of a project. In management, design thinking is applied to project-based work that addresses complex or *wicked* problems (Anderson & Kolko, 2008; Dunne et al., 2006; Pasisi, Gibb, & Matthews, 2014).

The roots of Design Thinking can be traced back from classical concerns with participatory design that favor integrating use of studies into project prototyping (Di Russo, 2012). In his work on user-centered design, Norman (1998) stresses the need to take into account user's objectives and motivations in making things visible. In *The Sciences of the Artificial*, Simon (1996) suggests that design is a process that aims to improve the value of artifices like products, services, and systems.

The Design Thinking process can be juxtaposed with the tenets of traditional management. Martin (2004) suggests that the focus on classical management is in improving repetitive tasks, whereas the design approach models work on a project-to-project basis. The nature of work itself is most often classified within well-defined roles, where a design approach sees work inherently as a collaborative exercise. Management theories proposed problem-solving models that are either deductive (*top-down*) or inductive (*bottom-up*), while design theorists privilege *abductive* approaches (*inside-out*).

Managers evaluate an activity's importance by the size of its budget and its staff, whereas design thinking suggests that success is tied to unbundling wicked problems. Management practice uses constraints to define the scope of action, where, as designers see constraints as opportunities to redefine the scope of potential activity. Finally, and importantly, management education encourages students to focus on one best solution to a problem, whereas design theory seeks to encourage the development of the larger number of potential solutions to a problem.

Simon originally associated seven activities with the design process: Define, Research, Ideate, Prototype, Choose, Implement, and Learn. Although there has been a debate since around which activities are critical to this process, practitioners generally agree that Design Thinking requires defining the right problem to solve, creating, and evaluating the different options, nurturing an environment conducive to experimentation and building, testing the proposed solutions in the real-world environment.

These same practitioners insist that these activities aim to develop specific skillsets in students and managers alike: the abilities to deal with ambiguity, to be curious, to develop holistic views of the problem, to develop empathy, to work collaboratively, and to maintain critical distance. As Waloszek (2012) concludes that design thinking can be understood as a methodology that combines understanding the context of the problem, creativity in generating insights and solutions, and rationality and feedback to select and analyze appropriate solutions.

A number of business schools have introduced design thinking over the last two decades as a subject of study. The value proposition of design thinking isn't however in analyzing its impact on business but applying the concepts of this methodology in developing management education as a whole. Specific points in which design thinking can improve how students learn about business include:

The student is inherently part of the problem that must be addressed. Teaching the student is less important in business education than helping future managers effectively address customer challenges. Each student brings unique motivations, experiences, and skillsets to class. Most cannot relate with the business context under study; their empathy and implication are prerequisites in solving the problems at hand. Finally, success depends upon practice: students must practice what teachers preach.

Business problem solving requires a much deeper understanding of the user and of the user experience than we normally teach in business schools. One of the core ideas in this vision is that the people using the products and services are different from those who manufacture and implement them. User experience is about creating memorable experiences that have a meaning for the consumer. Design thinking implies using quantitative and qualitative approaches to develop a better understanding of the data.

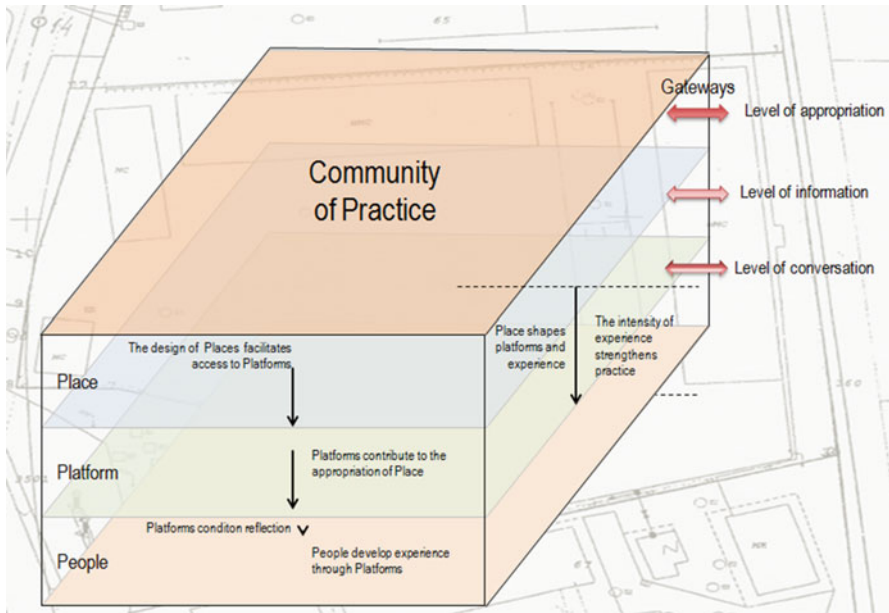
Business challenges are a result of a system of structures, patterns, and events, rather than just the events alone. Any system is a web of interrelationships between people, information, and physical technologies. There is a need to understand the essential relationships operating at various levels of the system, as well as different strengths and probabilities for change.

Design thinking takes into account how context shapes both the problem and the potential for viable solutions. In design thinking, a problem is not only defined by its operating context but also by the constraints imposed on the problem solver. The greater the constraints: the better the chances of producing truly innovative solutions. This approach postulates that constraints are a source of new ideas, and should be fully recognized as levers rather than inhibitors to creativity. The more constraints a problem solver is forced to confront, the better the opportunity to break out of the box of previous experience to find innovative solutions to the problem.

The logic inherent in design thinking can help students visualize solutions to complex problems that elude best practices. This abductive logic can be understood as the process of forming an explanatory hypothesis. Charles Sanders Peirce studies of the origins of new ideas led him to believe that innovation is tied neither to inductive nor deductive reasoning, but to logical leaps of the mind when our observations don't quit the existing frames and models. This form of modal reasoning called abductive logic explores what could potentially be true (Martin, 2009).

Design thinking insists on the necessity of formulating a large set of potentially useful ideas, services, and products, gradually improving their fit with the problems under study, prototyping, giving the product to the consumer and then improving it some more. The advantages of a prototype product, or simulating a service, include producing a better result at a more reasonable cost and contributing to strengthening empathy and engagement with the organization.

4 Place, Platform, People, and Practice



4.1 The 4Ps of DSign4Change

Based on our own pedagogical experience in Europe and abroad, we believe that the effectiveness of design thinking can be enhanced by focusing on the four foundations of *DSign4Change*. Critical considerations include:

4.1.1 Constructing a Holistic Approach That Focuses on Place

Management education is defined less by the presence of walls or computers than the nature of the experience that is nurtured in a learning place. *DSign4Change* borrows from the foundations of social geography in encouraging the construction of

learning places around a clear vision, planned events, desired outcomes, identifiable actors, and bridges with the real-world. The vision corresponds to specific learning objectives, the events, and the outcomes to the activities designed to reach these objectives, identifiable actors to the coherence of the motivations and experience of the participants, and the bridges to the pertinence of the experience between learning places and professional and leisure time activities.

DSign4Change, rather than ignoring the limits of the classroom and the students' experience, recognizes that business challenges and solutions are context-dependent. The participants themselves will benefit from exploring the relationship between the content provided in each program and the context(s) in which it is distributed, analyzed, and discussed. As Sharples, Taylor, and Vavoula (2007) suggests, context itself is a shell—learning not only occurs in a context, it creates context through the qualities of interactions between students and their professional environments.

With this in mind, instructors, like practitioners, need to elucidate the context not only in the “classroom” but also in the management practice under study. How does the amphitheater, seminar room, or internet café contribute or hinder the learning experience? What are the differences between a company visit, a guest speaker's testimony, or the setting of a serious game and the actual practice of management? As in real-life, these considerations include geography, time, physical resources, and budget. Rather than minimizing these differences, DSign4Change suggests that the differences be used as part of the learning experience.

4.1.2 Developing Platforms That Elucidate the Ubiquitous Nature of Information

Class content is formal and informal, structured and unstructured. Reading lists in class are similar to project briefs at work: both are necessary but often incomplete in understanding what needs to be known to tackle the business problems at hand. If MOOCs (Massive open online courses) are more and more popular with school administrations, they often reduce learning to watching canned videos and chatting online. DSign4Change proposes a different direction: students are stimulated to explore actively what information is available, on the Web and off, from primary sources within business community to academic research and discussions.

Information platforms, as opposed to websites, are designed to accentuate the proximity between producers and consumers of data, information, and conversations. How does the physical layout of the auditorium, workshop, or seminar room facilitate or hinder the students' understanding of the context of the subject under study? What high- and low-tech tools are provided to encourage the student's implication and appropriation of the subject at hand? How does the course support documents mirror or differ from the information available in the real-world? How do the school and the instructor build bridges between the classroom and the workplace to encourage the participants to apply the lessons learned?

4.1.3 Developing Each Student's State of Mind (People)

What does it mean for a student to work at school? The responses from our own students at the beginning of each year varies greatly, for some it's doing the class readings, for others it's participating in class, and for the vast majority its handling the class assignments. DSign4Change suggests that the ultimate goal of management education is not spreading the good word but helping the students transform data and information into managerial action. Our vision implies that the learning outcomes depend upon helping each student manager understand how they use information to develop their managerial capabilities.

Work in management studies involves identifying the right problems to solve, creating and evaluating the different potential solutions, building an environment conducive to experimentation, and testing the proposed solutions in the real-world environment. How are the students framing the problems to be solved? How are they encouraged to analyze the visible constraints to fuel new ideas and potentially new products, services, or systems? How does the specific pedagogy, and the program as a whole, represent a call to action?

4.1.4 Co-Designing Learning Environments That Fosters the Development of Practice

Practices are methods and/or techniques that consistently provide pertinent responses to market demands. DSign4Change suggests that developing business practices, much like developing better managers, are part of both the challenge and the solution for management education. As Sinofsky (2013) would suggest, productivity in a business school cannot be measured in its product or service offer, but in the capacity of its faculty and students to provide pertinent responses to external demands. We take good note, and fully assume the potential contradiction of our vision with certain accreditation processes.

The potential of the practices is limited only by what the school is willing to accept and/or finance. Among the dozens of current student proposals are welcome halls as physical hubs in student-centric institutions that display incoming students' motivations, aspirations, and interrogations, sharing rooms like those of the chameleons that change atmosphere, equipment, and discussions in response to the subjects proposed by the student body throughout the year, and "living student newspapers" produced physically and virtually by the students based on class assignments and activities.

5 Case Studies

5.1 Design Your School

We have been applying the principles of DSign4Change to in the MBA France-India program in encouraging students to improve significantly the impact of the learning "place." One of the major aims of this MBA, which draws students

principally from southwest France and the Karnataka region, is to provide accessible managerial skills to work cross-culturally. The objectives of the management innovation module were to introduce the students to the various forms of innovation, to elucidate varying practices in fields ranging from social commerce, omnichannel distribution to digital transformation, and to encourage the students to apply the lessons taught in small group projects.

A number of constraints shaped the project. To begin with, the diverse backgrounds of the students: engineering, technology, as well as the social sciences and the humanities, pleaded in favor of an integrated multidisciplinary approach to innovation. Second, the program's spatial distribution—one-third of the MBA is run in Pau, one-third in the Bangalore region, and one-third in internships in international companies—hinders the students' identification with a host school. Over the years, the need to build a stronger group identity and the deeper implication of the participants in the program have been constantly underlined by the program's staff. Finally, the majority of the students are constantly seeking to get out of class to practice management.

We incorporated the concepts of DSign4Change into a semester project called *Design your School*. In this crowd sourcing project, students were encouraged to use and apply the concepts of management innovation in redesigning learning places outside the traditional classroom, notably in the both the Commons and the Resource Library. The students were challenged to shape their *learning place* using physical resources, information technology, and change management. The students were invited to anchor their vision in the current students' interests and motivations, and then to redesign a space around a specific vision, use scenarios, events, and desired outcomes.

The preliminary outcomes of the project include several dozen student proposals from class participants, as well as a number of professors and students from others schools, on visions ranging from Feng Shui working environments to finance and distribution test labs to an innovation factories. Student participation proved markedly better than in many modules of the program; many students continued to pitch and improve their projects throughout the year. The module materials, as well as the students' projects have been incorporated into an interactive e-book that the students can comment and structure for their personal needs.

5.2 A Multidisciplinary Foundation for Management Study

We have developed the principles of DSign4Change in proposing a new approach to learning about management at France Business School (FBS). The merger of four business schools in 2012 gave birth to both FBS and a vision of management education based on a cross-functional management program. Behind this vision, the school has sought to appeal to a wide range of students by promoting innovation and entrepreneurship. The key to the program is a first semester agenda based on sharing and knowledge transfer among the different disciplines.

There have been several challenges in creating the conditions for pedagogical innovation. To begin with, the pedagogy needed to be restructured to solicit novel ideas, embrace challenges, and produce meaningful solutions for business. Course work had to be integrated in pedagogical processes that promoted collaborative work and prototyping. The traditional classrooms have given way to hotspots integrating co-working spaces and digital learning technologies (MOOCs, an LMS and broadband internet access). The instructors have been encouraged to become knowledge brokers opening gateways to real-life experiences.

Today, first year students are challenged to find fresh out-of-the-box solutions to today's major business problems. The wicked problems' they face are designed to strengthen their mental agility and develop their cognitive abilities for abductive reasoning. In class and out, students can write on the walls, build their own collaborative workspaces, and practice thinking-by-doing techniques (visual thinking, mocking-up, sketching, etc.). The student experience is based on an environment where problem-solving, prototyping, and testing products, services and ideas have become the staple of the pedagogical process.

Student evaluations indicate that DSign4Change develops twofold awareness: self-awareness on their capabilities to act as designers in producing ideas and solutions, and awareness on the power of collaborative work. The new program has accompanied a number of students in the creation of start-ups to put their ideas into practice both inside than outside the business school. Current students and the new alumni appear to create a cohesive community based on discovery and collaboration in line with the school's strategic vision.

5.3 An Interactive Onboarding Guide

In designing an international technology company's Interactive Onboarding Guide, we are working with the corporation to help its Operations Account Managers structure and react to real-time flows of data, information, and content. The company employs over 300 managers to handle the logistics of service and delivery in four regional operation centers on four continents. The corporation's strategic shift from selling software licenses to promoting software and devices focuses particular light on operations management as the employees must quickly absorb new knowledge and deploy new skills.

This shift in strategy has brought about a number of challenges in training new hires for the future challenges of software plus devices. The "one best way" to manage the new division does not exist as the corporation is exploring new markets. The operations managers are constantly on the go with little time to spend on classical classroom instruction. Communication between the different regional operations centers and between the logistics specialists themselves has been notoriously poor over the years. Finally, given the history of the company's success with desktop applications, the division has little experience with either mobile applications or mobile training.

The Interactive Onboarding Guide was conceived as an exercise in DSign4Change to address each of these issues. The texts themselves are delivered in the form of an interactive, social book that is updated each time the operations manager consults his tablet or mobile phone. Each page, each idea, and each theme can be alike, annotated, and shared by each manager, who can also consult the comments of his or her colleagues in real-time. The content is available off-line, permitting each manager to consult the book anytime and anywhere. Natural language search allows the reader to quickly locate key ideas from anywhere in the text.

The Onboarding Guide is currently being beta-tested worldwide. The Guide represents one of the corporation's first attempts to design and implement an application designed for a mobile workforce. The ability to take notes and share ideas inside the book offers employees a real-time tool to improve horizontal communication between the Operations Centers. The ability to update the texts in quasi-real-time offers the division the possibility to update its vision as the market challenges of software and devices evolve. Although it is too early to have any quantitative analysis of use of the application, preliminary feedback from the beta test team has been markedly positive.

In conclusion, we have put forward a proposal to take a fundamentally different approach to business school education. Our argument has been built upon a foundation of common critiques of the MBA: the bias of case study methodology, the mismatch between management theory and the practice, the lack of attention given to how most markets and industries are evolving. Our proposal is built upon the precepts of Design Thinking—understanding that the students are both part of the challenge and an integral part of the solution, focusing on abductive methods for solving market challenges, and dealing with both ambiguity and complexity.

Our vision goes beyond design thinking in suggesting that the value proposition for business schools is not in teaching the methodology, but in applying the approach to remodel management education. The scope of this effort should not be limited to improving cognitive approaches, but concreting to designing learning places, flows of information, and mindsets that support how students learn about management. Places, information, and mindsets are interdependent considerations in pedagogy that inherently influence the quality of education.

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