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Adaptive Thinking for Design Leadership. Coaching adaptive capabilities to empower next visionary leaders.

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Abstract: Several literatures have shown the necessity to envision design leadership as a strategy for the future of “advanced design” (Mozota, 2006), to anticipate the role of the designer as an “interpreter” who assumes an advocacy role (Buccolo et al., 2012) and to draft and promote design leadership as a competency at undergraduate and graduate levels (Baars & Rüedi, 2016) in order to draft and test new coaching strategies that will acknowledge the emergence of leadership in design. We argue that the first steps towards developing design thinking for leadership are: firstly to understand the difference between “training” and “coaching” in design education, secondly acknowledging the responsibilities implied by the leadership role, and thirdly understanding design leadership as a capability that develops in time and so requires an initial level of design expertise.

To clarify this assumption we present the different levels of expertise in design, and point out to the gradual changes of the mental states that lead to the achievement of a visionary level. We further argue that in order to prepare expert designers to discover and achieve master and visionary capabilities (Dreyfuss, 2003), it is necessary to implement tailor-made coaching strategies. Starting from this assumption we first present the literature review focusing on the design leaders’ responsibilities (Muenjohn, et al., 2013) introduce the different levels of the organizational context (Cooksey, 2003), outline the importance of uncertainty as a way to induce change in an organizational system, (Hammonds, 2002), and explain the leading and learning framework as an example of strategic approach for design leadership. In this context we explain the mutated role of the design educator from instructor, or teacher who “delivers” an educational content to the students, to coach, or mentor who constructs the learning process by empowering the expert designers to make the most of their own leadership capabilities acquired through training, practiced skills and personal experience.

In conclusion we show that future thinking for design leadership has to take into consideration three factors: 1. leadership thinking is not necessary accessible for all expert designers, 2. although the practical and professional skills are a necessary

ingredient, design leadership thinking capabilities are mainly activated by the dedication to an on going learning and leading process, 3. this implies facing the uncertainty of the organizational systems, anticipating and inducing rather than reacting to, change opportunities.

Keywords: leadership, coaching, design thinking, experiential learning, empowerment

1. Introduction

The design thinking paradigm has recently shift from the domain of design discipline into an extensive range of interdisciplinary domains (Dorst, 2008). As a consequence, designers started being recognized as key actors on higher hierarchical levels of large organizations. This role reflects first an increased need for innovative strategies within the organizations and secondly the relevance of design thinking skills that can support innovative change. The perception of designers as change makers and innovators, implies however more than acquiring managing skills, an overall ability to understand the nature of the organizational context, identifying the outdated meanings and values (Cooksey, 2003) and choosing the right metaphors that will enable the implementation of change. These traits draft the profile of design leaders who have to act in close relation and dependency with design management (Gloppen, 2009), as main actors in the organizational transformation (Bucolo, 2015, pp.113-129).

All the above bring forward the necessity to envision new training and coaching strategies that will acknowledge the emergence of leadership in design education. We argue that in order to attain a leadership mindframe it is necessary to look at the different expertise levels in design, asking how to coach expert designers to discover and achieve master and visionary capabilities (Dreyfuss, 2003). Starting from this assumption we first present the literature review focusing on the evolution of the design thinking, present the organizational context (Cooksey, 2003) and suggest several methods that can support design leadership coaching activities.

The methods were tested in three workshops, which involved expert designers and architects with consolidated careers from China, India, Brazil, Chile and Italy. We will present the argument and duration of the workshops, explaining the content and the results of the activities underlining their coaching dimension. The discussion will show how the passage from the expert to master and visionary mental frames involves a dynamic of empowerment, in which designers are encouraged to trespass the borders of the professional training and skills and rely on the experiential knowledge in order to activate their intuitive and imaginative capabilities. We suggest that design leadership has to be understood as the capability of the designers to learn and guide in order to provoke change from inside an organizational system. The main question the paper aims to tackle is: while there is an ongoing acknowledgement of the leading role of the design professionals in the upper organizational levels and a growing interest for cultivating leadership through design, design leadership curricula is still not fully articulated. We suggest that the first steps in establishing such programs are the following: recognizing the levels of expertise at which design leadership can be cultivated; understanding the difference between expert training and leadership coaching in design; suggesting experiential learning (EL) as a valid methodology for design leadership coaching.

2. Literature review

Design thinking literature, has so far concentrated on designers' skills and their ability to adapt to the brief practicing their skill and knowledge to generate the most innovative solutions. This perspective concentrates on the professional expertise acquired through practice and has at its core the relation between designers and clients or client organizations in a demand and offer dynamic mediated by the design brief. The working process and design thinking patterns of exceptional designers has been researched by Nigel Cross and focuses mainly on designers and architects leading their own private practices (2003, 2004). Cross shows how expert designers have the capability to think in terms of the co-evolution of the solution and problem spaces, having the goal of finding matching problem-solution pairs (Dorst & Cross, 2001). Discussing the dynamics of the teamwork Cross distinguishes between three different types of processes: a technical process, a cognitive process and a social process, arguing for their acknowledgement and integration in the overall design thinking process (Cross & Clayburn Cross, 1995). The successful integration of these processes develops in time and as shown by Dorst and Lawson (2009) is part of the evolution of the designers from novice to expert. This underlines the importance of the design thinking in multidisciplinary team work and the relevance of design thinking framework in other professions (Martin, 2009). As a reaction to increasing migration of the design thinking concept into other disciplines, Kimbel seeks to re-establish the understanding of the design thinking in the perspective of design practice (Kimbel, 2009). Furthermore, Tonkinwise suggests that the design thinking paradigm grew into an autonomous concept, increasingly dislocated from the design practice by the means of downplaying the importance of esthetics and style (Tonkinwise, 2011). He argues for the necessity of re-introducing the design practice as an intrinsic component of the design thinking as a way of preventing sterile interpretation of what essentially defines a design skill acquired through hands-on experience.

2.1 Shifting from design thinking ability to design leadership mind frame.

Design thinking – The overview of the above studies indicates three interpretations of the design thinking concept: firstly as a problem – solving methodology refined through working experience and specific to the design discipline, secondly as a transferable approach which gradually became detached from the actual disciplinary field that generated it, and thirdly, as a reaction to the previous interpretation, as a intrinsically related to practice. In this last stance, design thinking is presented as an intrinsic part of design practice which is as Lucy Kimbel remarks:

... generated as a way of understanding what is distinctive about what designers do but viewing it as a social accomplishment in which bodies, minds, objects, agency, process, structure and knowledge are all implicated, and linking what designers do with what users do in their practices. (Kimbel, 2009).

If the first two interpretations design thinking relate to a problem solving approach, the third introduces a holistic perspective of thinking and practicing in design. This perspective indicates a change in the focus of the designer, from design thinking for problem solving to a holistic view of the overall design activity situated in the context of an overall system.

Design Leadership mindframe – The capability of perceiving the overall system transforms isolated thinking into an expanded awareness of the self in relation to the organization and therefore the readiness to act as a guide for the overall organization. In this sense the design expert thinking transforms into an expanded leadership mindframe in which the practical expertise reinforces the leadership capabilities.

In this concern, previous literatures have shown how design leaders have to encompass several core responsibilities in order to engage and guide. As such, Muenjohn drafts a conceptual framework that underlines the following core responsibilities of the design leaders:

- envisioning the future
- manifesting strategic intent
- directing design investment
- creating and nurturing an environment of innovation

(Muenjohn, et al., 2013)

In this case “envisioning the future” is the first responsibility that activates the leading capabilities giving a different meaning of the relation between the design process and team performance. “Vision” is also shown as the desired outcome of the operational and strategic activities in business firms by Bucolo & Matthews, pinpointing the transition from the abstract to concrete levels and from the project to business levels (Bucolo & Matthews, 2011). Furthermore drawing from Norman’s definition of “transitional engineering” (Norman, 2010), Wrigley & Bucolo pinpoint the need for a translator of the design concepts into business opportunities and indicating this role as “transitional developer” (Wrigley & Bucolo, 2012).

In all these instances design leaders leverage the design practice to widen their perception and understanding of the organization, embodying guiding roles from within the organization.

2.2 From expert skills to leadership capabilities.

The previous distinction between design thinking as a problem solving methodology and design leadership mind frame as a systemic understanding of the problem solving process, and its impact in the organizational context can be better understood when mapped on the skill levels and mental functions at the different levels of expertise (Fig.1).

SKILL LEVEL / MENTAL FUNCTION	NOVICE	COMPETENT	PROFICIENT	EXPERT	MASTER	VISIONARY
RECOLLECTION	non-situational	situational	situational	situational	situational	chance seeking
RECOGNITION	decomposed	decomposed	holistic	holistic	holistic	random
DECISION	analytical	analytical	analytical	intuitive	intuitive	instinctive
AWARENESS	monitoring	monitoring	monitoring	monitoring	absorbed	mutated
Youth Training				Adult Education		

Figure 1 - The expertise levels modified from (Dreyfus & Deryfus, 1980) to include the 6th, visionary level.

Looking into detail at each category of mental functions and tasks helps envisioning the dimensions in which the coaching for mastery in design leadership can evolve.

With respect to the recollection of situations at the expert level in which "the expert has learned to distinguish those situations requiring one reaction from those demanding another" (Dreyfus, 2004, pg. 180), at the master level it is the observation of the situation at hand that provides the cues for orientation. In other words the master's mind-set is not projected solely on the past experiences but remains alert to the present and incoming stimuli. This enables him/her to recognize the specificity of the new circumstances in a holistic perspective and activate almost instantly the decision and action. The speed of reaction with which the master activates his/her perceptive resources coordinating them with the decision process requires an inward attention towards the emotional signals that guide intuitive action. This underlines the state of absorbed awareness concentrated on self-consciousness. Figure 1 shows how bringing the levels of expertise in the context of the design environment, the professional expert, that before was confined to his/her skills and ecosystem of the own studio, gains a strategic leadership role for an extended community of practice. In this context, coaching adaptive behaviour and an increased awareness, which mutates from individual skills to attain a visionary mind frame described above.

2.3 Referencing

Looking at the different levels of expertise and mind frames in the previous figure, helps understanding why design leadership capabilities are showing, and can be better expressed, at advanced educational levels. As such, if up until the expert level the skill was strictly related to the in-depth comprehension of technical capabilities, at the master level the fully proficient expert is engendered with the capability to face adaptive challenges, questioning and criticising the previously acquired expertise in a constraint domain of practice. From this perspective coaching for design leadership shifts the educational objective from the transformation of knowledge into a design outcome, to the transfer of personal experience into the capability to be aware of the overall organizational system and anticipate its changes. Coaching for leadership in this sense has to be seen not as an educational format but as a fluid activity that empowers the expert designers (and not only) to achieve a higher level of awareness and reach their own visionary potentialities.

3. Design leaders in the organizational context.

In this context, coaching adaptive behaviour and an increased awareness on the responsibilities of the design leaders can activate the visionary mind frame described above. Moreover the leadership role implies the full acknowledgement and assessment of the mechanisms of power and how to orient in a given system of influences. This brings in discussion firstly the possibility to look at designers acting with a leadership mind frame from within the organization, and applying the design thinking through practice This perspective is also supported by Baars & Ruedli who argue that:

The function of design cannot be restricted to a mere application of design skill on artefacts and touch points, but can be regarded as a process, for instance in the application of a method like Design Thinking (...) becomes a crucial aspect for any business doing. (Baars & Ruedli, 2016).

3.1 Understanding the manifold dimension of the organizations.

In this perspective, design thinking is re-integrated as one of the main competencies of the designers empowering them to claim leadership roles within organizations. The leadership mind frame has to be understood as having a double folded dimension in which leading and learning practices are always intertwined. To picture the relevance of the adaptive learning and leading processes it is necessary to outline the nature of the organizational context and different levels at which it evolves. Figure 1 shows how the “environment” outlines the area outside the organization, in which the interests of different stakeholders, social and political actors influence the dynamic of the organization; the “organization” defines the overall features of the agency such as its history, structure and hierarchy, internal culture, resources and procedures; the “groups” refer to the formal and informal networks and communities of practice within the organization, with their specific behavioural patterns and influences; finally each “individual” is seen with his/her capabilities, personal resources, needs, weaknesses and emotional features (Cooksey, 2003, pg. 205).

This generic description of the different layers of the organizational context help us envision the complexity of the creative environments, emphasizing the fuzziness and entropy of the interferences at all levels pictured bellow.

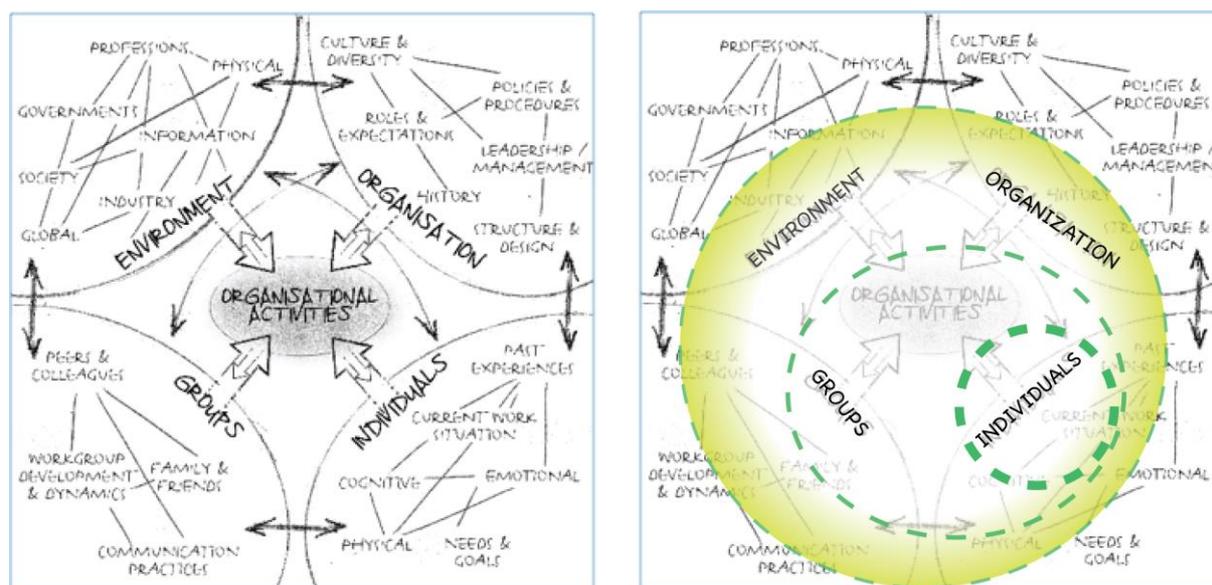


Figure 2- left - The different levels of the organizational context. Modified after (Cooksey, 2013); right – expanding the levels of awareness from individual to group, organization and environment.

3.2 Experiential learning contribution for design leadership in organizations.

In order to activate the learning and leading cycle it is necessary to remember the importance of imagination in blending the hands-on skills with the knowledge and expertise of the trained design professional. Rather than delineating designers' "place" it is more important to focus on the role of the design leaders and understand empowerment as an important responsibility. This process of empowerment is necessary in order to acknowledge, the changing business realities that require leadership roles in design, due to the diversity of design activities throughout the organization. As underlined by Baars & Ruedli, "this added focus generates greater complexity and a multidisciplinary view, but allows design to be represented and integrated throughout all aspects of the organization." (Baars & Ruedli, 2006).

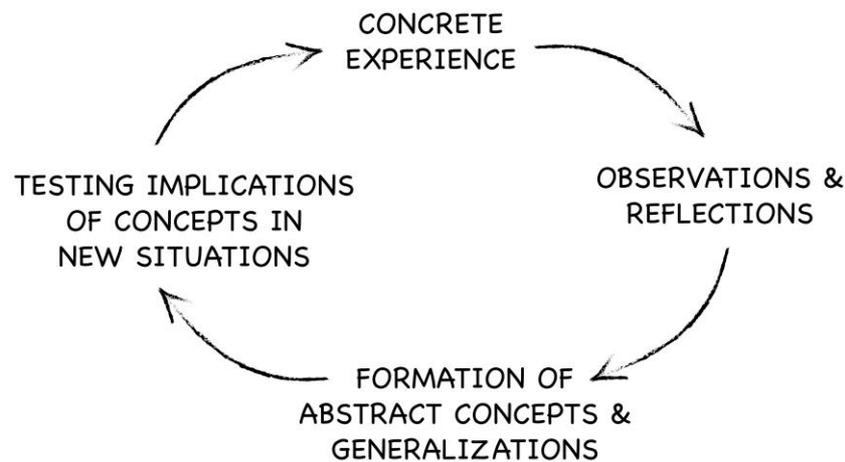


Fig.3 Experiential Learning Model (Kolb, 1976)

In this sense the actual task of the design experts from a leadership perspective is to guide from within the organization with an experiential learning approach (Kolb & Kolb, 2005) (Kolb, 2014). The most important contribution of the design leaders it is to push the boundaries of the limited perspectives with the use of imagination, continuously enlarging the domain of vision, action and possible achievements. The ultimate goal is not to find solutions to incoming problems, but to revert the perspectives transforming the obstacles in opportunities for change, or introduce new problems with the objective to frame the context of change. We argue that, the experiential learning model (EL) proposed by Kolb (fig. 3) is a valid coaching methodology that can integrate design thinking and practice into the design leadership mind frame, in particular because its cyclical integration of concrete experience in the abstract conceptualization required by a strategic leadership.

3.3 Anticipate imminent changes, seeking creative meanings.

Having seen all the above we can see the role of the coach or mentor for design leadership as a guide who has the challenging task to maintain and sharpen the critical sense of the expert designer, and leads the experts through an empowerment process in which the roles of educator and student transform into a learning partnership (Jackson, 1992) (Kolb, 1984)(Kolb et al., 2001).

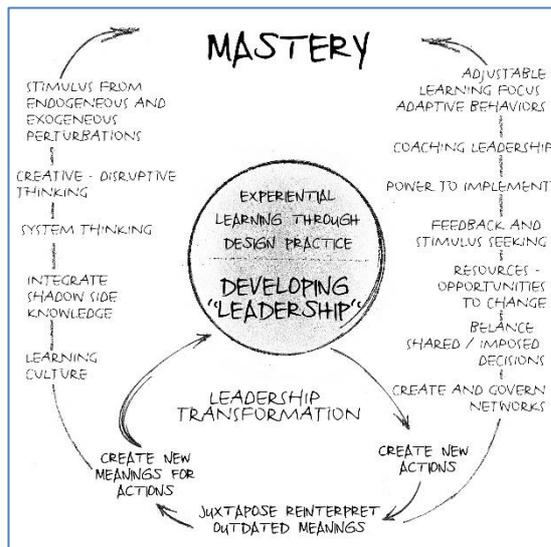


Fig. 4 Developing a space for design leadership through experiential learning. Modified after (Cooksey, 2003).

The experiential learning coaching prepares designers to identify and integrate design leadership at the various levels of the organizations. Moreover in this perspective the leadership activity is maintained and supported by the preparation to engage in an on-going learning process. This enables the design leaders to create new actions, reinterpret out-dated meanings and propose new meanings for actions through practice.

3. Coaching experiments in design leadership.

Starting from the above assumptions, the following examples are intended to show the first steps in testing the hypothesis that experiential learning methods are relevant in coaching for design leadership. By this we refer to the category of professional designers that achieved a high level of expertise in their careers. The workshops took place in Italy and China in 4 different one-week sessions, and involved groups of 15 to 35 fashion designers, architects, managers and owners¹ specializing in design luxury markets. The aim of the leadership module was to empower the participants to analyse their activity with a strategic lens taking into account the power dynamics that influence their decision making process from within and outside their organization. The coaching activity proposed the EL model, adapting it to the specific needs of the students (fig. 5)

¹ The workshops were part of the Master in De. Lux, Design for Luxury organized by PoliDesign in Beijing, Hangzhou and Shenzhen in 2015 and 2016.

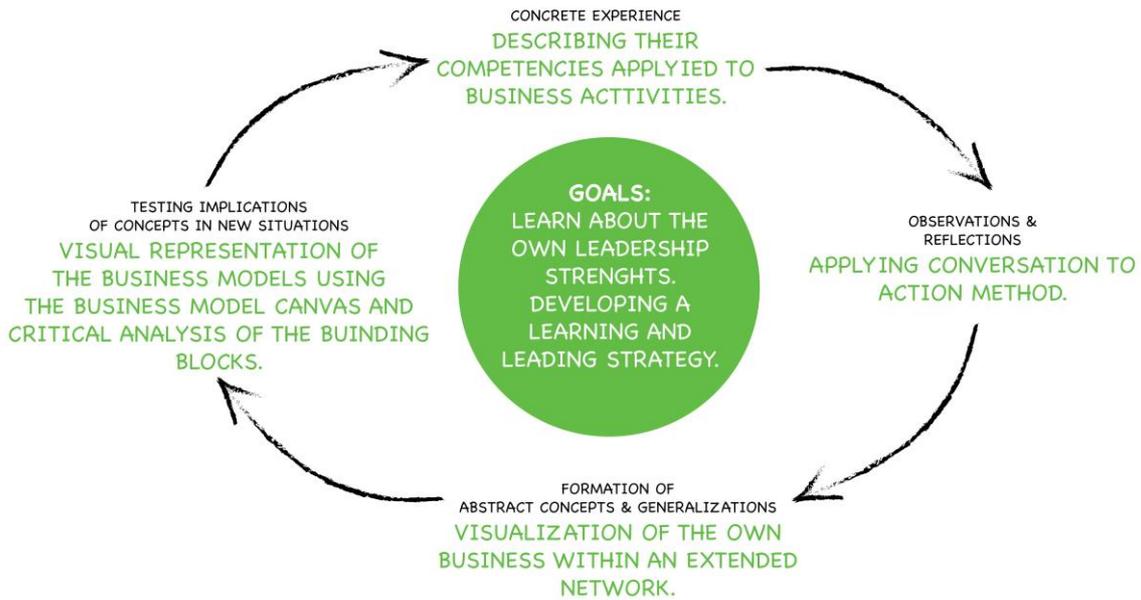


Fig. 5 Applying “EL” model in the design leadership coaching activities.

3.3 Experiential learning methods applied in coaching design leadership.

Having mastered the work routine in their own design studios, or in managerial positions in large architecture and design studios, the experts involved in the educational activities were not seeking the refinement of their skills but rather were motivated by the unexpressed understanding that design goes beyond the mere execution of a given brief or the successful management of a subordinated team. The main aim of the workshops was changing the focus of their interest from “how to” find solutions for incoming problems to asking “what if” as a way of activating their own leadership capabilities. In order to do that the authors used methods of facilitation inspired by conversational learning approach (Baker et al., 2002) which links the abstract and concrete ways of knowing, requiring an emotional involvement from the participants. The conversations were supported by hand drawn visualizations, mind maps and business model representations.

The subject of the conversations connected the power dynamics in the professional network with the business model enabling the participants to increase their awareness on the power dimension, find and visualize the critical nodes, and envision strategic changes in their organization.

One of the most successful exercises was to ask students to create their own map interpreting the various internal and external factors and anomalies that influenced their professional network. This exercise was possible in particular because the expert designers were already familiar with the actors and stakeholders in their influence network and introduced a power dimension to the reading of the business model (fig.6).

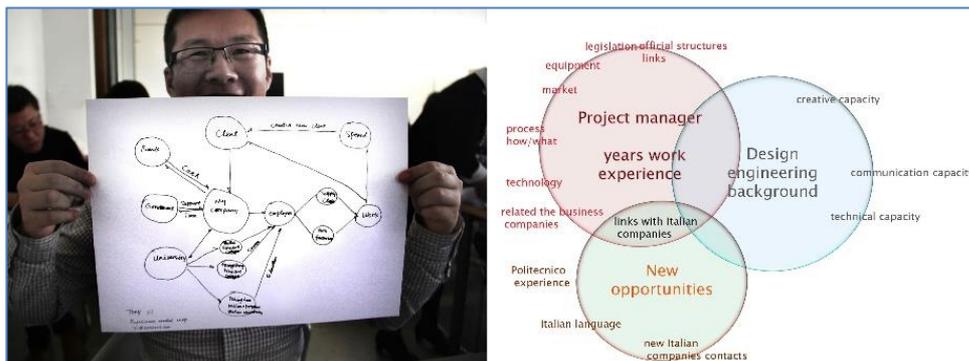


Figure 6- Examples of exercises during the workshops. Visualizing the position of the organization within a network.

In this case it is important to underline that the visualizations were intended mediation artefacts for a discussion on the practice of leadership from three different perspectives: first as a “Constellation Design” of the actual state of the power flow within the organizational system; second to raise the awareness on the unknown, or hidden potential of change in the organization; third to understand the organization within a larger context and relate the power influences at a larger scale.

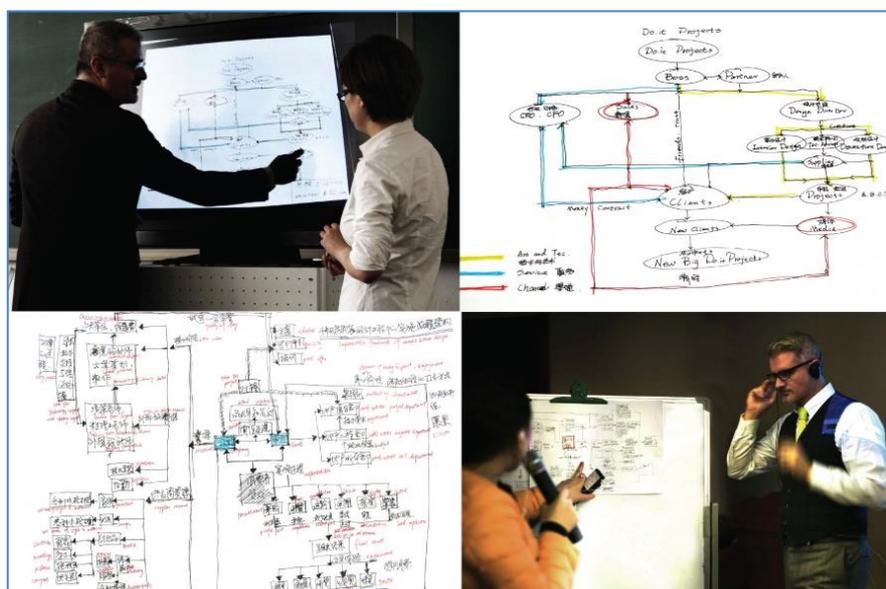


Figure 6 - Visualizing the power flow and influence with the help of a business model sketch.

2.4 Creating the adequate experiential learning environment for intercultural communication.

The exercise has to be seen in this sense as a condensed experience organized in several steps, which had the aim to empower expert designers to use, and think in a different communication code, that of politics.

The steps followed the observation, orientation, decision, action strategy presented previously in order to coach an improved awareness on the dimension of power in design. In this sense after the initial presentation of the argument the students were asked to recollect their own concrete experiences, reflect upon their familiar design management routine; the practical exercise phase had an orientation dimension in which students created abstract visualizations of their business activities, this phase presented decisional dimension in which the participants were asked to prioritize the information expressing it in a synthetic, conceptual manner. Finally they tested the leadership influence flow with the help of business modelling visualisation .

In this process the role of the lecturer was that of a mediator and facilitator, introducing a provocative attitude as a way to sharpen the critical sense of the expert designers, supporting them to shift from observation to action. An important factor for the facilitator / mentor is to practice an active listening by being present and underlining contrasts rather than imposing a point of view. As we will show later on the coach has the delicate task to stimulate expert professionals to shape ideas rather than respond to ideas, adopting an active leadership attitude rather than a reactive one more common for the role of follower.

In this sense the facilitator has the responsibility to coach and therefore support the experts to achieve an extended awareness rather than imposing a pre-established direction and setting up educational goals to achieve.

3.5 Chance seeking as a leadership capability.

The elements that allow a leader to achieve his/her purpose are only partially visible and also related to chance seeking (Bardone, 2012). As Bardone remarks a chance can be seen as an opportunity that will be assessed in the future and relates both to what we know but more interesting to what we don't know. In this sense he divide the “knows” in three main categories:

Forgotten knows, which refer to the knowledge that was once acquired but remains stored in our memory only as a fading memory. This kind of knows are still present and have an important influence on the way we reason even though cannot be fully recollected.

Secreted knows, related to the Freudian concept of repression of a known and are hidden or unknown to one's unconsciousness and therefore secreted.

Tacit knows, which comes from Michael Polanyi “The tacit dimension” (Polanyi, 1983) and describes the knowledge acquired through experience in time that cannot be expressed in words or images. In other words we are not fully aware of the accumulation the tacit known. All three categories are called by Bardone silent knows, and they affect the chance-seeking behaviour:

Unknown knows – in the form of silent knows – merely offer a potential chance for knowing, which, however, does not appear immediately evident or at one's disposal. [...]. Time is a major factor determining whether a silent known is going to remain silent or it will turn out to be a good chance.

(Bardone, 2012, p. 6)

Acknowledging the presence of the silent knows helps us draft a different type of leader, whose role is to become open towards the impact of the changes strengthening his/her leading capabilities in contact with incoming adversities, embracing the chance seeking within a chaotic system. The use of imagination unleashes the silent knows allowing them to act as intuition rather than structured representations therefore leaving space to the envisioning of an open system. The advantages that come from being aware of the existence of the silent knows are manifested in the strength and confidence in one's own actions, a quality that a leader must acquire and display in order to be able to accomplish his/her guiding role. One of the most important points of the leadership coaching is therefore acknowledging and educating the multidirectional aspect of observation, aimed at chance-seeking and envisioning an open system guided by intuition and confidence in unknown knows.

Conclusion.

Starting from the integration of design thinking and design practice into the design leadership mind frame, we presented experiential learning model as a possible approach for coaching design leaders.

Drawing from design management literature, we argued that due to the emergence of new business realities designers are required in leadership roles. This position asks for a mutated awareness, which shifts from the individual focus to the overall acknowledgement of the organizational system and environment. This holistic approach calls for expert designers to learn about their own strengths and weaknesses, and learn to cultivate visionary capabilities. We underlined the validity of the experiential learning model for coaching design leaders and presented the results of three experimental workshops involving expert designers. We conclude by suggesting that although design leadership is still a relatively new concept in the design management literature, coaching strategies can be successfully implemented at the graduate level of design education.

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