Business Design Capability:  
A Competence Hierarchy Model for  
Organizational Creativity

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Abstract  
This paper presents a competence hierarchy model for organizational creativity. The model includes four creativity competence levels each related to four creative skills. The model suggests a relation between organizational creative skills and the business design capability of the organization.

Keywords: Business Innovation, Corporate Entrepreneurship, Creative Skills

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Introduction
An organization’s creative competence level seems to play a role in determining its capability for business design. To understand the levels of creative competence, it is necessary to examine how each level relates to specific creative skills. However, one of the key issues of organizational creativity is that the most popular creative approaches are primarily based on processes and techniques, not on skills. Some important creative process and technique approaches include Brain-storming (Osborn, 1953), Synectic (Gordon, 1961), Creative Checklists (Davis and Roweton, 1968), Mind Mapping (Wycoff, 1991), Lateral Thinking (De Bono, 1992), Creative Problem Solving (Parnes, 1992), TRIZ (Altshuller et al., 1997), Design Thinking (Brown 2008), and Analogical Reasoning & Conceptual Combination (Martins et al., 2015).

While creative techniques and processes may somehow be linked to the nurture of creative skills, they are not as such creative skills themselves. However, research has done some serious studies on creative skills. Such research suggests that creative skills can be measured and nurtured through training (Rose and Lin, 1984; Scott, Leritz, and Mumford, 2004; Torrance, 1972). Karwowski and Soszynski (2008) even attempted to categorize some creative skills in terms of how they can be trained. Lund, Byrge, and Nielsen (2017) suggested a connection between creative skills and the process steps in doing business model innovation. Their model takes a process perspective. This paper takes an organizational perspective on the connection between creative skills and business design capability.

Approach
The results in this paper is based on insights from more than a decade of focused research on how to advance creativity. It is the result of a rigorous data collection, analysis, and conceptualization. The data includes literature reviews using combinations of search terms such as creative thinking, development of creative skills, design thinking, innovative thinking, creative competences, creative problem solving, creativity training and variants hereof. The data also included a series of interviews on creativity, advancement of creativity and its relation to business innovation as well as controlled experiments to examine the potential advancement of creativity.

The research has been performed as action research in collaboration with both private and public organizations. These collaborations have focused on the advancement of creativity and creative processes in football, management, medicine, recycling, banking, health care, the military, the parliament, food and beverage, zoological garden, public libraries, software development, film production, regional transportation as well as other domains and industries. One of the more important research
projects was about designing a Creative Genius training program for professionals who wanted to radically advance creative competences and confidence about their profession as innovators, business designers, and managers. The Creative Genius Professional was a one-year part-time training program that was running in the period from 2013 to 2019. The participants were from more than forty different professions.

The data analysis was focused on identifying unique creative skills and how each skill relates to competence levels for business design ambitions. The results were conceptualized into a competence hierarchy model for organizational creativity that relates creative skills to business design capability.

Key insights

![Figure 1: Competence hierarchy model for organizational creativity](image)

Operational design is focused on the competence to solve everyday problems by coming up with useful new solutions. The core creative skills related to this level include problem discovery, idea production, cognitive stimulation and idea presentation. Companies with ambition for operational design will need to develop and sustain these related creative skills in the parts of the organization where they want creative operational design.

Problem discovery is the skill to identify the less obvious problems and to turn such problems into starting points for creative efforts. This requires an explorative open mind as problems often contain
a wide range of nuances, all of which could be starting points for creativity. Idea production is the skill to produce a high quantity of ideas at will. This requires a consistent and quick generation of ideas, for example being able to produce 50-200 ideas for a single problem. Cognitive stimulation is the skill to use unrelated stimuli such as random words, objects or pictures as inspiration to trigger new directions of thinking in the production of ideas. This requires an awareness of pattern thinking and a determination to diverge into new thought directions. Idea presentation is the skill to keep an open mind as you communicate ideas to an audience and to be able to integrate any type of feedback from the audience into the further elaboration of the presented idea. This requires an understanding that ideas are always in motion and that they always have the potential for improvement.

User-centred design is focused on the competence to deliver new values to users by producing new solutions that better match their needs and wishes. The core creative skills related to this level include creative elaboration, sense for value, scenario thinking and idea expression. Companies with ambition for user-centred design will need to develop and sustain these related creative skills in the parts of the organization that are directly involved in understanding and delivering value to the users. Creative activity in user-centred design may lead to novel unforeseen operational problems in the parts of the organizational that is indirectly involved in either understanding or delivering value to the users. As a result, companies with ambition for user-centred design will also need to develop and sustain creative skills related to operational design in relevant parts of their organizational.

Creative elaboration is the skill to combine all available knowledge and experience in new ways as part of the further development of ideas. This requires a playful mind for exploring even seemingly insane ideas to see where they may take you. Sense for value is the skill to clearly identify user value preferences. This requires a temporary ignorance of own perceptions and understandings to allow yourself to be surprised by how users may perceive a problem or a situation. Scenario thinking is the skill to construct possible future situations. This requires an advanced hunch for emerging opportunities and consequences. Idea expression is the skill to effectively communicate ideas to key stakeholders and gatekeepers. This requires a broad repertoire of communicative means involving meaningful sketches, drawings, prototypes, illustrations, charts, speeches, graphs, tables, texts, videos, and roleplays.

Business concept design is focused on the competence to produce novel solutions that involve multiple dimensions of the
general business, like new relations to the customer, new sales channels, new revenue streams, new partnerships, etc. The core creative skills related to this level include cognitive flexibility, principle thinking, sense for novelty and persuasion. Companies with ambition for business concept design will need to develop and sustain these related creative skills in the parts of the organization that are directly involved in strategy development, business development or business innovation. Creative activity in business concept design may lead to novel unforeseen operational problems in any part of the organization and, therefore, creative skills related to operational design should be developed and sustained across the entire organization. Also, creative skills related to user-centred design should be developed and sustained in the parts of the organizational that are directly involved in either understanding or delivering value to the users as new business concepts may lead to novel unforeseen reactions from users.

Cognitive flexibility is the skill to change perception at will about a problem or situation. This requires going beyond own perceptions and making deliberate attempts to produce multiple alternative ways for understanding an idea, problem or situation. Principle thinking is the skill to transfer solutions across knowledge domains that are, in principle, solving the same problem. Essentially, principle thinking is to take out the solution from one context and transfer it to a new context. This requires being able to understand an idea, problem or situation at an abstract level. Sense for novelty is the skill to identify ideas that has novel potential. This requires an intuitive feeling to distinguish between novel and non-novel ideas. Persuasion is the skill to make an audience comply with a novel idea. This requires argumentation that effectively addresses why a novel idea may diverge from current domain logic and industry causality.

Business ecosystem design is focused on the competence to produce original game-changing solutions that redefine an industry and may even set new standards for doing business across several industries. The core creative skills needed at this level include interest discovery, doubting standards, ethical sense, and creative perseverance. Companies with ambition for business ecosystem design will need to develop and sustain these related creative skills in the parts of the organization that are directly involved in radical and disruptive business model innovation. If a company attempts to change the ecosystem in which it operates, it will also need a continuous creative approach toward the unforeseen impact it may have on its own business concept, user value, and everyday operation. As a result, the entire organization will need to develop and sustain the skills related to operational design, while relevant parts of the organization will need to develop
and sustain the skills related to user-centred design and business concept design.

Interest discovery is the skill to sense which ideas, problems, and situations that may motivate you in some higher ways. This requires a curiosity-driven selection of ideas and a creative effort mostly directly by personal intrinsic motivation. Doubting standards is the skill to genuinely question everything that seems to be fixed and unquestionable, to start thinking in directions where most other people would never go. This requires to systematically question every notion that others take for granted. Ethical sense is the skill to identify how novel ideas may be harmful or bad to someone (including oneself) before making any persuasive attempts to change an entire business ecosystem. This requires structured and elaborate moral considerations. Creative perseverance is the skill to sustain creative efforts despite mental blocks, creative failure or social resistance. This requires a self-perception that your key job task is to keep the creativity going.

Conclusions
This paper presents a competence hierarchy model for organizational creativity. The model suggests a relation between organizational creative skills and its business design capability. It presents this relation as a hierarchy, where higher-level competences create the potential for higher impact business design such as business concept design and business ecosystem design, while lower-level competences create the potential for lower impact business design such as operational design and user-centred design. The model also suggests that each competence level is dependent on lower competence levels to be successful.

The competence hierarchy model for organizational creativity may help leaders and human resource managers in making advanced strategic decisions for the continuous development of creative skills related to business design capability. Hereby, companies can nurture creative skills relevant to their business design ambitions.

The competence hierarchy model for organizational creativity may also help researchers focused at the intersection of business, innovation and organizational capability to better understand and analyse the role of organizational creative competences for business design capability. As such, the model calls for studies on how each creative skill may be nurtured in an organization, as well as the relationship between each of the creative skills within and between the four levels. It also calls for studies on how these creative competences fit into general corporate entrepreneurial
competences, since creativity is not the only competence component involved in business design capability.

It would also be interesting to examine the skills at each of three strength capacity: weak, medium, and strong capacity. Employees who master a skill only at a weak capacity will understand the specific skill and its value for business design but will not be able to perform the associated creative efforts. Employees who master a skill at a medium-capacity will be able to perform the associated creative efforts when facilitated in a creative process or when using creative techniques. Employees who master a skill at a strong capacity will be able to perform the associated creative efforts intuitively, like second nature.
References


