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The importance of systemic thinking for mapping and development in design

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Designer - professional who develops projects that aims to solve such questions apart from human needs.

On this dynamic immediacy arise the demands of an hypermodern reality that emerges

"CULTURE-WORLD"

the end of heterogeneity traditional of the culture and the beginning of a universal market culture (Lipovetsky e Serroy, 2009).

Methodology and Design Theories

• Aim to identify a human need or an opportunity and, as from a project propose a solution.

The concept of the "applied science" in the design, originates in Ulm School is an "application" of humanities and social sciences (FINDELLI, 2001).

Relations between cause and effect of market demands and needs identified and solution and adaptation time, use and useful life for users and society are not considered.

- This article aims address the importance of systemic thought on mapping and development in design, besides presenting some tools of systemic approach.
- Faced with this scenario, the central question of this study is: how systems thinking could contribute the design?

• This interrelation can bring new practices to the design, resulting in greater skill front of a complex situation, providing a new generation of designers oriented to think continuously and involved in the situation that requires some solution design.

The thought will not be linear but dynamic, interactive and integrative.

Systemic thinking stems from general systems theory, so as to form an organized whole.

• is a new "paradigm", [...] a "new philosophy of nature" [...] and that the general systems theory is a general science of all, and then, a scientific investigation of "sets" and "wholes" [...]" (BERTALANFFY, 2009, p.14).

- Systems are integrated wholes, whose properties you can not be reduced to smaller units and relates that systems thinking should emphasize the basic principles of organization (CAPRA, 2006).
- "system is powered by the strategic vision that considers variables internal and external to the organization and its context in the feasibility of the design activity". (MOZOTA, 2011).

For the development of thinking and view systemic you need to know and explore some tools, such as:

- mind map;
- concept map;
- map systems.

MIND MAP

method to store, organize and prioritize information, using key words and images key that trigger specific memories and stimulate new reflections and ideas. Stimulates the brain to work faster, giving vision of the future and control for choice of actions and reactions (BUZAN, 2009).

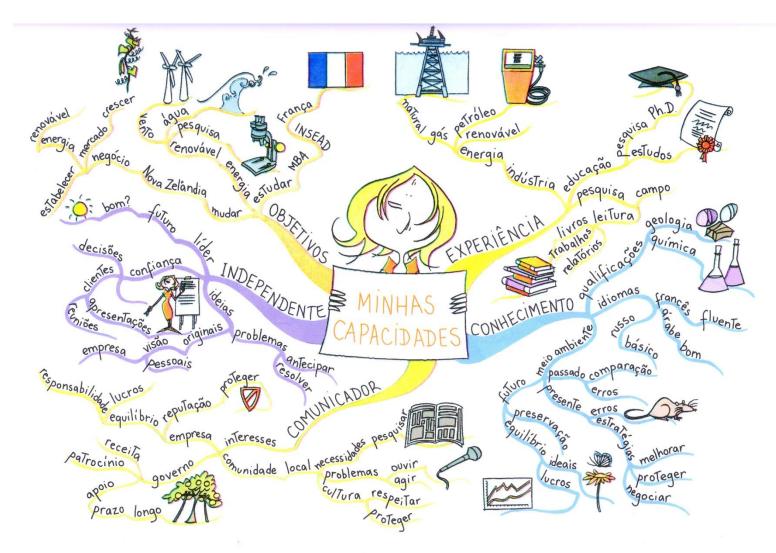


Figure 01 – Concept Map.

Font: Buzan, 2009.

CONCEPT MAPS

are constructed by means of diagrams of the meanings that indicate relations between concepts. These classify concepts, according Moreira (2005, p.1), through the elements: concept, proposition and "words of connection" (ONTORIA *et al.*,1999).

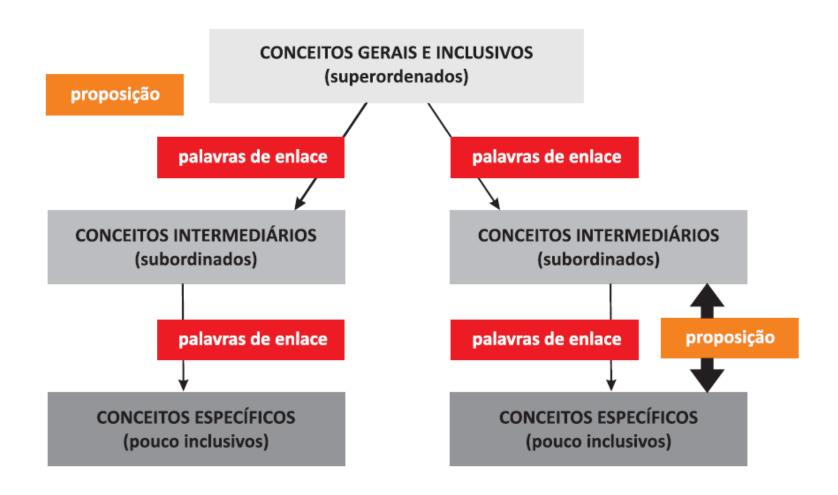


Figure 02 - Concept Map.

Font: Adapted from Souza, 2010.

• THE SYSTEMIC MAP (ANDRADE, 2006, p. 112)

has the function of constructing a systemic structure that determines "the behavior patterns of the organization by means of identifying of causal relations between factors and the situation of interest".

THE SYSTEMIC MAP (VEZZOLI, 2010, p. 254): It aims to help visualize the structure of the system, indicating its actors, as a tool for graphical representation.

It is described as coded for being a "technical drawing" system actors, demonstrating and comparing all systems for being "a formalization-in-progress map of actors of the solution, giving a precise picture of how to the project progresses" with map format, graphics elements, and a set of rules.

THE SYSTEMIC MAP (VEZZOLI, 2010, p. 254):

Is a support tool to design, "because the representation is a way to structure thinking and to facilitate the problem solving", which utilizes a standard language that can be shared with everyone involved, allowing "clear and objective view of the designed solution," as well as its evolution.

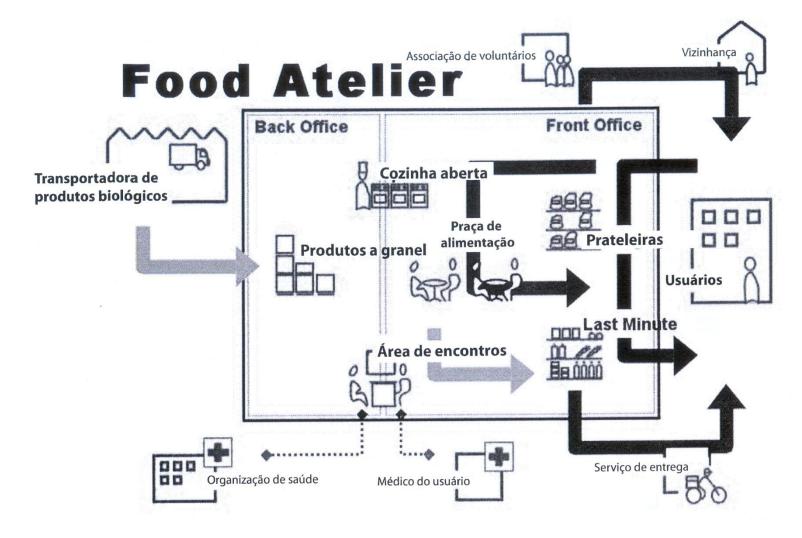


Figure 03 – Map Systems.

Font: Vezzoli, 2010.

CONCLUSION

It is concluded that the learning and utilization of systems thinking in design, and with the use of the tools presented, design professionals will be better prepared to deal with complex situations, visualizing parties and their relationships with the whole to propose solutions the most enduring and efficient, both for the quality of the work of designers such as to meet the demand of your customers and stakeholders, just as the product users and the society itself.

CONCLUSION

This implies the remodeling of thought according to the systemic approach and practices related to the integration mode to the design processes.

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