

## CONCEPT MAPS IN THE REGION LEARNING

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**Abstract:** The present work displays an investigation focused on the understanding of sociology institutionalization in Mexico, and if it is possible to be spoken of an academic crisis of sociology, as it is handled nowadays, besides an investigation that takes care of specific values of the sociological knowledge in the reality of each region in Mexico. This approach starts, firstly, in a study of the sociology regionalization in Mexico, with a methodological tool based on concept maps. Secondly, it tries a deeper analysis of this regionalization, to understand and to observe the processes of sociology institutionalization in Mexico. It is worth mention that the construction of concept maps was supported by a computational program called "CmapTools", which allows an efficient and a faster construction of concept maps. By making used of concept maps, we had a quick access to the information that was generated and organized in this project. The information organized in this way, allowed us to develop examples from the main concepts so as to present the important aspects of sociology regionalization, and in this way to know the dimensions that Sociology in Mexico has taken, as well as the research being made in the country and with this, get to know the types of sociologists universities are being formed and the social investigation they are making nowadays.

### 1 Introduction

In the last years an academic crisis of Sociology in Mexico has been established, but if Sociology is called to play a role of contribution to social reflexivity, does it really exist such crisis in Mexico? Why if its methodology and its theory turn Sociology into a social science with sufficient potentiality for orienting the processes of regional and/or local development reflectively? And why does it seem that this reach in different Mexican regional contexts expressed in sociological investigations cannot be observed? People could say that we have an academic crisis of the sociology. (Figure 1 shows the pose of the problem).

We found that, at the present time, the social thing has become more complex, and it is observed in the debate on modernity and postmodernity. The changes are just being discussed. Thus, Sociology formed from its first passages like a plural company, and there are more and more authors, who defend pluralism like something inherent to Sociology, but how have this configuration been occurring in Mexico? And how are the sociologists and the institutions in Mexico being inserted to these changes?

We can say that the methodological construction, in which sociology moves, is given in certain processes and when we spoke of the "Analysis and synthesis; abstraction and concretion; reduction and application are daily processes in the scientists 'chores.'" (Arellano, 2005:11). To this daily form of the scientific task, Novak proposes the concept maps like a methodological tool to organize this type of processes made by the scientist. Ausubel (1963) mentions that the singular factor which influences more in the learning is everything that the student has already known, and sees in its theory the new development of the meaning like a building of relevance of the concepts and proposals, also observes the structure of knowledge like a hierarchic organization from the most general and inclusive to the most specific and less inclusive concepts under the most general. For Arellano, an investigation design constitutes a planning of the investigating process. If we know what and how we are going to make an investigation process, the complex of this activity becomes simple and accessible (Arellano, 2005:143). Thus, the importance of the schemes for the investigation is essential because it gives a global and particular vision of the processes; it allows us to see the manifest relations between the same processes. And it contributes to the clarity of the processes connection. (Arellano, 2005:149).

### 2 Approach to the reality by observing the relations with the use of concept maps

From Novak's proposal in the introduction of the concept maps to organize information generated in an investigation, we found a tool that gave the possibility of organizing all the captured information in the investigation that seemed to be a range of data without sense. The problem was based on the form in which relations between data were observed and organized. When the first approach was made to the expositions of Novak and his group of investigators, we obtained an investigation that allowed ordering the information in a hierarchic way and creating a relation of the data base obtained (Novak, 1977). Thus, a concept map shows the specific label of a concept in a node or box, with lines showing connection words that create an affirmation or a significant proposal.

The concept maps allow the significant learning acquisition. Because, as it leaves from the own creation of the student, this person is shaping what he/she understood of the central problem, and similarly allowing the creativity in the construction and relation of the concepts. In the case of the investigation, to observe the roundtrip between the theory, methodology and what the reality itself expresses.

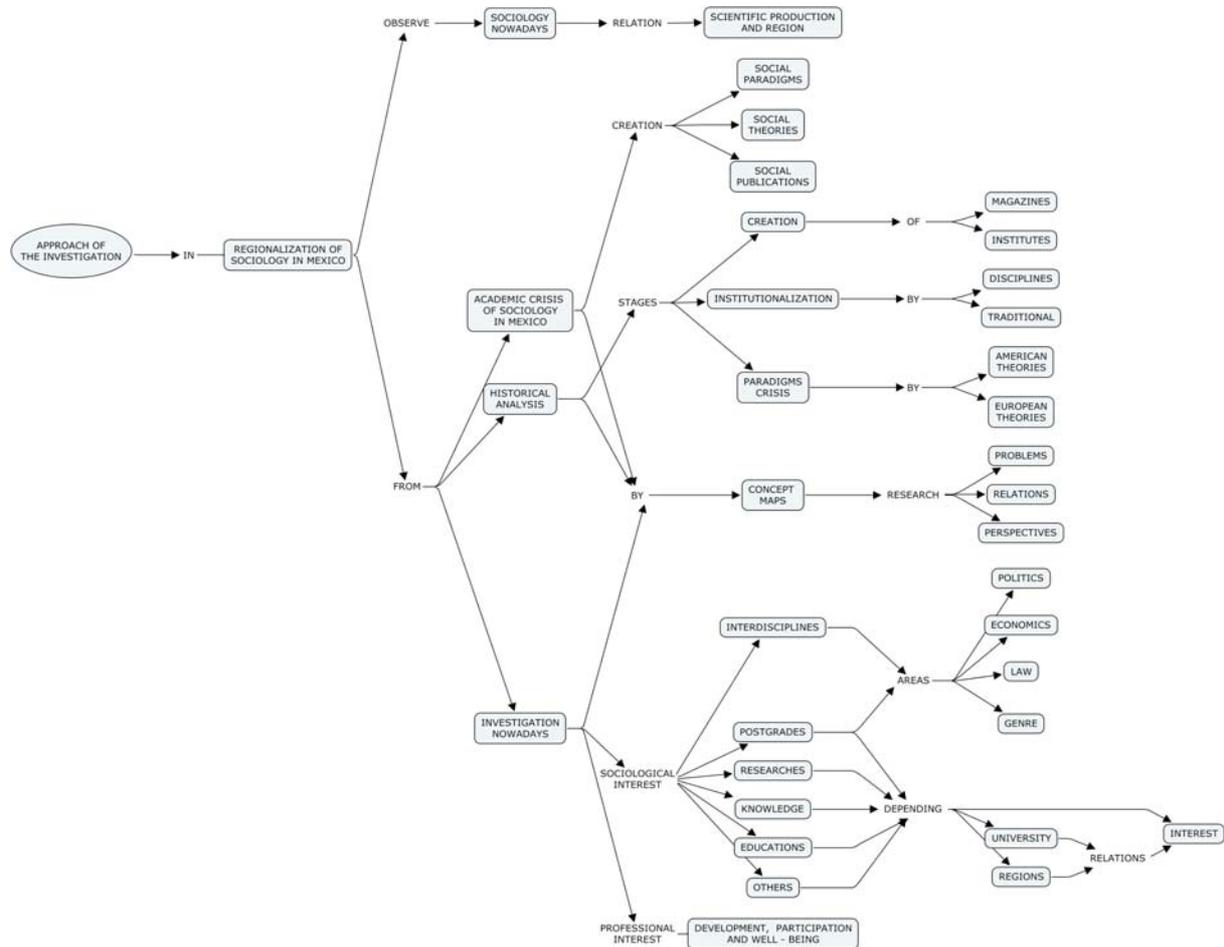


Figure 1. Exposition of the problem with the use of a concept map.

The construction of the concept maps occurs, in first place, with the interest question, that is to say, the question specifying the problem or problems that the concept map must solved. Later, a list of key concepts related to the interest question is made; these must be ordered in sequence of greater to smaller importance. With this, the construction of a preliminary map is made so as to facilitate the creation of a good order in hierarchical of concepts. In this way, a concept map cannot be finished, because it has the possibility to introduce new concepts if it is necessary. Finally, it must make the creation of liaison communications lines that help to know how concepts are related to others.

Novak and his group of investigators created the program CmapTools allowing the accomplishment of the concept maps in a simpler and practical form. With the use of software, the creation of own conceptual maps is easier, and we can manipulate the concepts and connections as we want. Also the software allows the incorporation of images, tables, formulas, allowing a better bond with the construction of the concepts facilitating the significant learning.

The usage of conceptual maps in the sociology regionalization permits to create complete maps of the information, a global field of which it was going to be investigated was created from maps, and by creating these concept maps they allowed us to organize, to analyze and to understand the relations that were occurred in the investigation; as well as to make a synthesis of the obtained data; and secondly, to permit having access to this organized information so that it was possible to be understood from a simple and fast way without the necessity to return to all the information consulted in gross, facilitating the organization in all the study of sociology regionalization, including all its relations and imagining possible worlds.

CmapTools was used as a tool to create concept maps like reinforcement for the learning subjects, it facilitates the construction of them. And we could created Web connection using the software, allowing to have accessible information to consult at any time, in addition the insertion images, in this case of geographic maps that showed the relations of the territory with the position of the universities in Mexico.

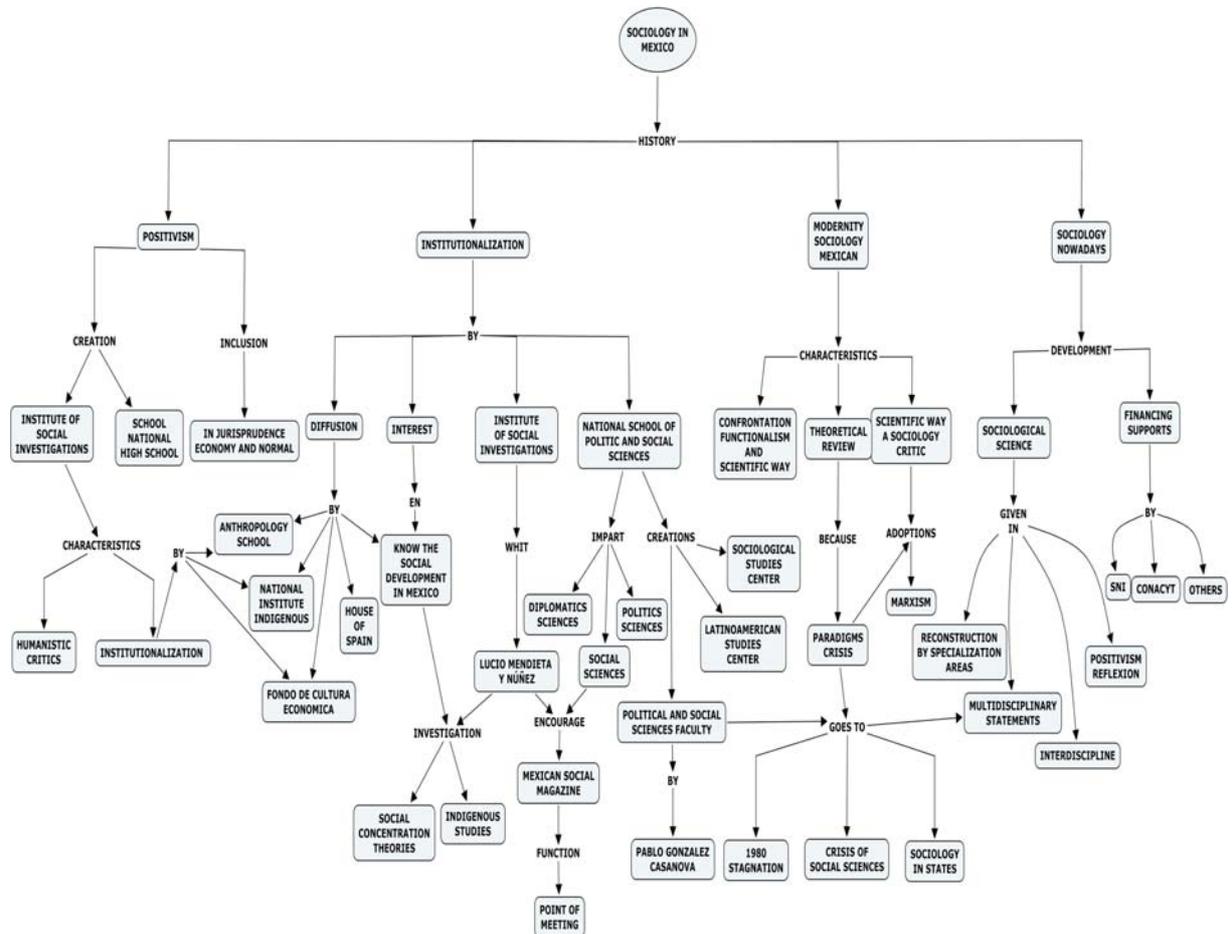


Figure 2. Historical process of sociology in Mexico

### 3 Regionalization of Sociology

As one considered, an academic crisis of Sociology in Mexico has been established, the interest on this topic, is focused on understanding the situation of the development of sociology in Mexico since the research of a regionalization of the sociology, starting the investigation with an historical and analytical revision of the discipline, and the relation that keeps with the certain regions in Mexico, observing if the conditions of each region determinate the institutionalization of sociology, thus to arrive at the exposition if really such crisis of the discipline exists as certain authors said (Castañeda, 2004), and if this crisis exists to know in which dimensions it is, therefore, to know the extent on what is spoken on this crisis in relation to the academic scope with the relation that exists between the sociological production in the country on one hand, and by the other in the absence of consensuses generalized on the fundamental questions of the discipline in a heterogeneous community of sociologists.

Therefore a regionalization study is made in universities that teach sociology in Mexico. In this way, a regionalization considers, cradle in the creation of nodal's regions; that is to say, starting with the centered universities of the country and then to the surrounding ones, this regionalization is based on the historical construction process, being the capital of the country where the sociology was institutionalized, and it was from this region where it began the sociological studies.

In this first concept map that I made is a general exposition (figure 1) of the approach questions related with the topic, and the first question which we start was: how is organized sociology in Mexico?, which took me to the historical interest of sociology from its beginnings to the present time (figure 2). But also it took us to pose

how sociology in Mexico is organized, and why is necessary to know the perspective of the investigation in relation to the region in the universities in which is distributed and investigated, and to know what kind of sociologists are being created within these universities.

### 3.1 History of sociology in Mexico

As it is shown in the concept map (figure 2), the historical development of sociology in Mexico can be seen in a simple, practical and completed way. When we set the information in the concept map, it allows us to a fast access of the historical information, to see the basic processes that occurred in the institutionalization of the sociology, the characters of the different institutions that gave a contribution in the institutionalization of it and the changes determining historical contexts in which sociology was developed. Once, having organized the information in concept maps, relations were easier to see on each of the stages of sociology, and this permit to observe the most important aspects in the development of sociology in Mexico, or if it is necessary to incorporate new scenes to the reconfiguration of sociology, and therefore new problems were generated through history of sociology. Also in the concept map it was observed clearly the shifts of paradigms in the processes of the institutionalization and modernity of sociology, and the change to multidisciplinary and interdisciplinary studies accompanied by the few or null governmental supports in the social studies in Mexico nowadays.

### 3.2 Regionalization of the universities

Once an historical knowledge of sociology in Mexico was acquired, it was consulted by Internet all the universities of Mexico, with the purpose to know where people can study sociology. First we search the sociologist profile; this was made to know if in all the universities the same vision of a sociologist was handled. Secondly the structure of the curricula of the discipline in each of the universities, to observe the approach that was occurring to the preparation of the sociologist, who although, was related to the profile of this one, they went finding relations between specific studies of the region in where the university was located. In general, we are speaking about Sociology in Mexico that has shown a permanent interest to understand the situation of crisis of the region and, in general by the characteristics of the contemporary society.

## 4 Conclusions

The use of the concept maps in the learning regions, the case of the regionalization of sociology in Mexico, was very useful since they facilitated the exposition of the investigation in first place; and secondly, it helped to create the relations between the concepts developed with respect to the exposition of the problem: its organization and hierarchical structuring. Maps were supported by a computational program called "Cmap Tools", which allows an efficient and a faster construction of concept map, allowing modifying them, when a revision was made. And mainly the annexation of Web sites, that permitted a faster access to the sources in a direct and efficient way. Another utility that left the use of concept maps was the knowledge acquisition. It is possible to be said that creativity woke up to look for more suitable forms in the relation of the concepts that described the exposition of the problem.

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