

fhgAnálisis de la cultura de los académicos en el contexto de las nuevas formas de producción del conocimiento. Caso de una universidad mexicana

Analysis of the Academic Culture in the context of new forms of knowledge production. Case of a Mexican University

Análise da cultura de acadêmicos no contexto de novas formas de produção de conhecimento. Se uma universidade mexicana

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Resumen

La conformación del paradigma denominado sociedad del conocimiento propicia cambios en la cultura de los académicos e incide en la transformación de los modelos curriculares universitarios, los cuales pasaron de ser rígidos, cerrados y agregados a ser flexibles, abiertos e integrados. Este artículo presenta un estudio de caso de la Universidad Autónoma de Sinaloa desde una óptica cualitativa.

Palabras clave: modos de producción de conocimiento, sociedad del conocimiento y cultura de los académicos.

Abstract

The conformation of the paradigm known as knowledge society leads to changes in the academic culture and it has an impact on the transformation of University curricular models, which went from being rigid, closed and aggregated to flexible, open, and integrated. This article presents a case study of the Autonomous University of Sinaloa from a qualitative perspective.

Key words: modes of knowledge production, knowledge society, academic culture.

Resumo

A formação da sociedade do conhecimento o paradigma chamado promove mudanças na cultura de acadêmicos e afeta a transformação de modelos de currículo universitário, que deixou de ser rígida, fechada e agrega a ser flexível, aberto e integrado. Este artigo apresenta um estudo de caso da Universidade Autónoma de Sinaloa a partir de uma perspectiva qualitativa.

Palavras-chave: modos de produção de conhecimento, sociedade do conhecimento e da cultura de acadêmicos.

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Introduction

Organizational changes affect the life, work, relationships and the environment. The study of the dynamics of the work of the educational institutions may not sit behind with the constant changes in the form of perceive, produce and process knowledge, so it is essential to understand the dynamics of work of the actors from their context individually and then as a whole.

This research seeks to demonstrate the changes that occur in the academic culture and its influence on curriculum models. Reality demands faster and more successful transitions so universities can generate knowledge and understand the scientific paradigms, as well as

serve as far as possible all modes and knowledge. This is carried out through the study of the behaviour of the actors involved in this complicated process.

Method

Phases of the approach of this research are as follows:

1. To obtain concrete and useful results we opted for the model of qualitative research in the case study of the AUS. The reason was that this centuries-old institution has approximately eleven thousand academics and one hundred eight thousand students at different educational levels (high school, technical, undergraduate and graduate); in addition, its academic and administrative organization, currently in transition, is of character hybrid and includes research centers, schools and faculties distributed in four areas along the State of Sinaloa, Mexico. The two faculties that showed more changes in the culture and the curriculum were the Faculty of Law (FDUAS by its name in Spanish) and the Faculty of Civil Engineering (FIUAS by its name in Spanish).
2. Was constructed a theoretical framework that included theories that explain concepts such as culture, academic culture, society, knowledge society, context institution, knowledge, models of knowledge, curriculum, types of resumes, model, model traditional, systems of social communication, classical systemic theory, as well as approaches to address its study and categorization. They seeks to get a better trans-disciplinary analysis that facilitates the study of a highly complex and simultaneous phenomenon. Later on we got the base theories compared and discussed.
3. In addition to these theoretical models (which help to discuss the reality of the context of the institution under study), to achieve a true portrayal of the reality of the UAS key informants were chosen with the following characteristics: they know the history of the UAS YSU university model, are former rectors willing to work or academics active with twenty or more years old; produced written material about the university; They know the model of the university. It notes that it was not required to have been rector. After 13 exploratory interviews were

scheduled for interpretation (of which 10 were systematized and deep), and with the help of software AQUAD 5.9 se analizaron qualitative data.

4. As it was necessary to collect more material for clarification of changes in academic culture y en curriculum, so we sought exhaustiva en the minutes of the University Council (H.CU) (the highest authority in decision-making of the UAS) from December 2002 and back, until it no longer had continuity in the minutes of H. CU (January 1993). Después se separated academic agreements, among which were those that had to do with changes in university curricula, which provided a solid point partida sobre behavior.
5. After discussing the theories and analyzing the interviews proceeded to interpretation and exposure by building schemes presented in the draft of the results section.
6. Finally, with the help of the elements presented se elaboraron conclusions.

Results

The results of the first phase of investigation showed that there is no evidence of a unique academic culture in the UAS, as defined Burton Clark (1992); that is, from its components disciplines, institution and context. In any case, all university (academic, administrative and student workers) share the same context and social position within the university, so que podemos speak of a university culture but not an academic culture. It turned out that there was a high chance to find cultures differentiated, some academic defined in terms of Clark, (as is the case of the Faculty of Economics of the UAS from the perspective of respondents) and otras configuradas through more consistent historical processes with notion of academic background (such as the Faculty of Internaciones Studies UAS, from the perspective of respondents).

In the UAS, as they threw the first interviews, successful paths faculties are those where the incidence of academic career prevails and closer to the university model proposed by the Anuies recorded (ANUIES), which it is inferred from the results of evaluations carried out by the Inter-institutional Committees evaluation of Higher Education (CIEES).

The information above is allowed to infer medianteel systematized software for analyzing qualitative data (AQUAD 5.9). With treatment was given to the information gathered in-depth interview during the first phase of the investigation, which was originally structured as a simple exploratory study with the objective of building the referent, the generic vision of the UAS. So he went construyendohistóricamente model university in the UAS, hence those interviewed spoke model college at different times: either engeneral in the case dela UAS or from the administrative policy or academic dimensions.

The software used for handling qualitative data has several functions that apply depending on the degree of depth the researcher wants to achieve in his analysis: exploratory study, comparative study, historical analysis, case studies and / or construction of theory. In this case all were used and what started as a simple exploratory study concluded in a theoretical construct, it was necessary a rigorous data management methodology, creatividad and use the software to get to this construction.

The main conclusion in the first phase of the research was that should reflect on some elements and that some structural changes are occurring in the culture of academics of certain social groups, aunqueno all as would be ideal.

The next step was initiated by construction of concepts interrelated to propose a comprehensive model, a theoretical abstraction to synthesize the various structural forms of the culture of academics, which has a real chance of existirdesde the conditions of the UAS.

When key informants spoke of their academic careers, how institutional openness to business and government sectors and inter-institutional relations take place, expressed be bonds that tend from guidelines proposed by international and national policies for the development of ES , which have been applied in financing programs for the development of their research projects. That is how the processes by which they themselves have increasingly become leaders and how they are configured their groups and networks that now constitute its capital social.Sus elements give speeches speak to infer that when the culture of scholars of a social group becomes structurally, that fact affects the way we produce and generate new knowledge, which in turn impacts on the transformation of the curriculum that the group designs, manages and operates. In this case, the opening of new training programs that emerge from traditional racing has much weight. Break off, but not

displace, since the traditional races remain and presenting a social demand that justifies its existence, in the case of the UAS, the academic group operating in the mastery of regional story detached the Bachelor of International Studies and master's degrees, similar thing happened at the Faculty of Civil Engineering, in which computing graduate programs emerged between others. These latter are operated by groups of scholars who are more established in their disciplinary identity.

All these facts concatenated have been defining cultural los procesos curricular transformation, translated into the selection and framing of knowledge included in the curriculum according to deBasilBernstein (1993) interpretation of the processes of decision-making during the design and operation of curricula and like Michael Gibbonset. *al.* (1997), Burton Clark (1997) y Rocío Grediaga (2001).

However, there are differences between the processes of selection and framing the curriculum affecting movements according to the conditions of each group of academics who operate them. Thus it had to adopt the term transformation as the category that includes either a simple change, innovation or curriculum reform, establishing a clear demarcation between the concepts in the literature of the ANUIES (ANUIES, 2002).

It was necessary to visualize the curriculum in motion as the axis of nonexempt changes contradictions and clashes that have to do with making decisions regarding the selection of curriculum content, support the social and workplace actors who defend both their scientific conceptions, as their social and working in the workplace position.

Therefore, during the development of the research outlined here, the approaches of both authors (Clark, 1997 and Grediaga, 1997) were synthesized; and not only academic culture was analyzed, it was intended to achieve a more comprehensive vision, build a synthesis that will lead to a new explanatory theoretical model, assuming that the culture of academics has minimally three spheres of manifestation in constant conflict (academic , administrative and political) and each a systemic structure with three components: contextual, institutional and epistémico. Este latter refers to the source of knowledge from which to nurture their academic explanatory diagrams about the universe and in particular its scientific and teaching work.

The dialectic synthesis between the postulates of Clark and Grediaga was constructed by assuming that the valid cultural structure components were academic institution and context; both authors include them, while the third conflict (as Clark disciplines, or paths according Grediaga) was replaced by the here called epistemic component, which encompasses both conflict (disciplines and paths).

Thus, according to this new structural model of the culture of academics under construction, the epistemic component behaves so that its variation can be recorded using a scale in the first end of the proposed Clark (disciplinary component) is placed and the another, the proposal Grediaga (1999) path.

The achievement was to have some basic concepts, among which the meaning of knowledge, and not as a concept but as a whole conceptual construction sustained, which allowed visualize the most recently produced in all disciplinary areas from its two scientific knowledge dimensions (static and dynamic); ie the *conocimiento* it was conceived as a product and a process, which proved quite useful, it must be remembered that it was intended to study the curriculum from their transformation processes to flexible, open and integrated curricula, and agglutinate authors to talk about the process of curriculum flexibility found that these occur around the axis of knowledge (Contreras, G., 2002).

Also it found that flexibility is the product of an extensive process of participation of stakeholders in the knowledge that transcends both the physical limits of higher education institutions and businesses, government agencies and international agencies, and that is to conceive of knowledge dynamically: be prone to constant transformation; consider the process of building new knowledge in its social dimension, which can reach high levels of sustainability from the integration of diverse forms of participation of the actors in the curricula of the IES.

These processes of curricular transformation prevails in this time of transition, when the traditional scientific paradigm, within which new ways of producing knowledge emerge crumbles.

This served to firmly set the theoretical framework and involve him what Gibbonset. to the. (1997) calls *el modo 2* production of knowledge: the process is characterized by interdisciplinarity and transdisciplinarity, knowing that the spaces in which knowledge is

produced are simultaneously university and business. The knowledge produced there due to other organizational logic and to new forms of validation, so have other criteria to measure their consistency and quality control, different from traditional or mode 1.

Mode 2 is a symbol (as Gibbons) of the current time when a transition occurs towards the knowledge society or society of mode 2, as a phenomenon of social scientification, not institutionalized yet, that has come to account for a new relationship between science and society.

Mode 2 hits that transcends disciplinary boundaries; helps to disseminate the hard core of scientific communities and the emergence of groups of knowers with different roles (those who produce, those who manage and those who sell it as a product on the market). Meanwhile, Nowotny, Scott and Gibbons (2002) propose that the university no longer a masificaday university to become an enlarged, by institutionalizing processes of mode 2, so that it has a presence right on the stages of the application new scientific and technological knowledge.

The extended university, contextualization mode 2y the impact of mode 2, are the minimum elements that require transformation processes gather to displace the traditional paradigm. This theme was taken up to build the indicators on which to base the analysis of the transformations of both the culture of academic curriculum as in the cases studied. If the characteristics of such elements are present, culture, curriculum or both, will be making room for the inclusion of mode 2 and to the extent that happens, these (culture and curriculum) are flexible.

The processes of curricular flexibility given in the context of a review of the structures of the curricula of university careers and for the selection and development of curriculum content and social processes, both involving interrelationships of the actors or subjects curriculum, but also as cultural processes that comprise the assimilation of new modes of scientific production due to the prevailing culture in the area where these actors develop their academic work (teaching and research). Such assimilation leads to decisions to classify and frame the content of the curriculum at the school level, but they do it as a process closely related to the level of the institution and macro levels of decision-making that address and give meaning to curricular changes in contexts of struggle for power, for

the principles of control and management of educational content through codes and subjects level, become different organizing principles that dialectically positioned (Bernstein, 1993).

Bernstein define three systems of social communication: curriculum, pedagogy and evaluation. Within these codes that serve to control positioning of subjects occur, as enable them to determine the valid knowledge (in the area of curriculum); what counts as valid transmission of knowledge (teaching thinking) and how a student demonstration of knowledge (in the evaluation).

The ylaenmarcación classification of knowledge are social facts that attack the disciplinary boundaries of knowledge to make educational content; these processes depend on social principles. Meanwhile, Bernstein proposes categories added and integrated as a typology of educational codes applicable to the curriculum, to reveal the degree of social control.

In the context of this research it was taken as budget mode 2 knowledge production emerge to form an array of structured codes, to position the subject in a position to replace the rigid and traditional ways of producing scientific knowledge and assimilate the most innovative through their culture and transmit them to the curriculum.

These groups of actors, along with the materials they handle knowledge that constitute the structure of work, same as with the authority and beliefs form a system of education (Clark, 1991).

For Clark, beliefs constitute the element that determines the existence of ideological systems in different cultural areas such as discipline, establishment, the profession and the education system. The last two areas merge into what the author calls the context; so remaining three elements: discipline, institution and context as essential components of academic culture. Beliefs about knowledge are what determine the boundaries of culture; there is a close relationship between knowledge and higher education, so you can study this relationship from different perspectives, for example, investigate to what extent the division of scientific knowledge in multiple disciplines, promotes social division of academic work in systems and educational institutions, it determines the positions of the actors.

Faced with this proposed model of structuring the education system comes another in the Mexican context, in which the axes of analysis are set: a) the organization, as a conglomerate of actors; b) academic work, as activity of teaching and research, which was checked by a statistical regression highlighting the diversity of professional identities and forms of work does not depend on the disciplinary differences, but of institutional and individual historical processes, whose components are interrelated. The components of the organization are: disciplinary communities, higher education institutions and national and international scientific communities, while academic work consists of teaching and research (Grediaga, 2001).

Thus, the category of discipline opposes the trajectory, and apparently each persists in its model (Clark vs Grediaga); a component that, along with the other two, the context and the institution, shapes and gives meaning to academic culture.

However, the contrast between the two categories is presented because they have been worked in different contexts to the UAS.

Since from dialectical view can be integrated with other elements thesis to work a synthesis contextualized reference to a particular approaches of both authors were resumed during this investigation, thereby constituting a contextualized synthesis; ie, that meets the conditions prevailing in the UAS, considering that at this university is registering a transition within the culture of the académicos. Esta conceived in its dynamic and changing dimension, same that under certain conditions you can take the exemplary expression proposed by Burton Clark (2001); however, by varying these elements condicionese coated proposed by Grediaga (2001), both placed in a continuous on the time line and designed as tension forces causing incidents.

The conditions containers in the interpretation of Bernstein (1993), favoring the influence of disciplinary factor, have more proximity indicators Mode 1 knowledge production, namely:

- Arise and solve problems in a context governed by interests largely academic part, but in a specific community.
- It is discipline.
- Your organization is hierarchical and tends to be preserved.

- It has its own form of quality control.
- It is socially elitist and discriminatory.
- There rigidity and bureaucracy in production.

On the other hand, the conditions of academic work in an institutional climate of collaboration and plurality, building social networks of inter-knowledge, emergence of academic leadership, mobility of actors and use of technologies applied to educational processes, among others, are propiciant elements mode 2, characterized contrary to these processes.

Gibbonset al. (2002) suggest that the business sector is part of the context in which more knowledge outside the university occurs and that companies are moving in the logic of the market, indicating that social, political and economic relations and these must be bounded by regulations governing their modes of operation, so that, being under the tutelage of economic power, not harm the natural environment and provide service to the community, thus contributing to the development of living standards.

The government is responsible for monitoring regulations, as collaborating with resource management in support of the participating social sectors to propiciant good development of industry and research.

Thus a network of relationships around the production of knowledge, which está delimitado por an intermediate context with three nodes is: university, business and government, "the three propellers" of speaking Etzkowitz (1998) in their model called the Triple Helix, developed from the area of economy. But the model Etzkowitz abarca more than that as it may serve micro and macro para análisis, whose three propellers are: actors, institutions and regulations.

The purpose governing the production of knowledge is what makes or corporate evolutionary character of the triple helix in each context. When dominates the first, the three propellers move to benefit large sections of society because it seeks a better distribution of wealth and no responsibility in all development processes.

In the event that dominates the corporate character of the triple helix, policy makers mediate between the company that want to learn and the university that wants to undertake, establishing between the latter two propellers a relationship that, at various scales, is

explained by Sheila Slaughter (2001) through the category of academic capitalism, and whose main characteristic is the entrepreneurial attitude of scholars who are in the need to diversify the forms of funding their research.

In all these postulates to the school as one of the main agents of knowledge and parts of a whole, ie, society is involved. In them lies the notion of economic and political power of groups of actors within delentramado for decision-making, especially around the ultimate purpose of the production and application of knowledge, which tends to address the way it is set up a new structure social (techno-economic order), and is closely related to the philosophical, ethical and sociological underpinnings of educational and cultural processes; that is, own arrangements, either a model or corporate evolutionary development, thus constituting a complex system of relationships between actors of various kinds and defining areas or areas of cultural manifestation.

To set up a comprehensive view of the whole and its constituent parts, was used as the Systemic Theory Classical (Bertoglio, 1992), the nature of knowledge estructuracuerpos tool and allows the inter-disciplinary analysis of the various issues generated.

To close the theoretical and conceptual framework was considered necessary to clarify what is meant by institution. The significance adopted for this concept comes from the field of the new institutionalism, specifically the New Economic History, field of history which disciplines Fogel and North (1996) have provided the historical analysis of the evolution process of the institutions: like Shultz, with the Theory of Human Capital and Gary Becker, through its analysis of institutions and functions of the family and marriage.

From this perspective, an institution is how humans relate a given society to seek the greatest collective benefit. Those relations are governed by rules, customs, habits and customs and are defined by Oliver Williamson as standards or rules, formal or informal. The institution is not designed, but is an evolutionary outcome; stable and is commonly used teaching and learning to maintain this stability or evolve their rules and customs. In short, the only institution takes shape with the passage of time (Williamson, 1989).

In applied to the field of economics education institution is called to areas with a function of socialization directed towards achieving certain goals or purposes. This function is gradual and expands as individuals interact with a larger group. Thus, the first institution is the family and then can be the church or school.

The new institutionalism emphasizes relationships between members of a given society. These relationships are defined as standards or rules, formal or informal, same that limit the performance of individuals. The former are normative, regulatory nature; the others include customs adopted by a collective.

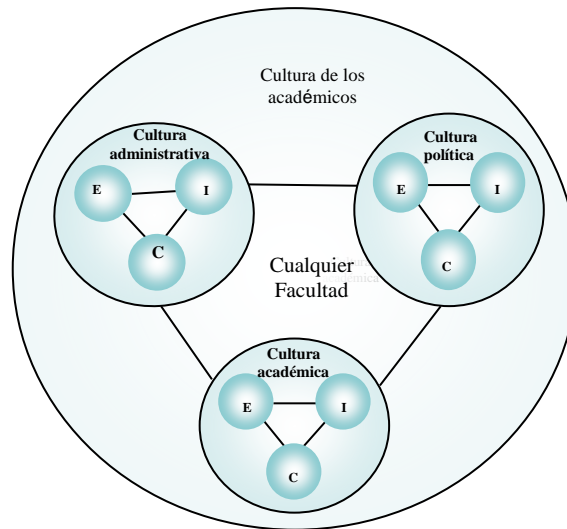
These elements of analysis from theoretical constructs interdisciplinary were gradually integrated into the course of the investigation as advanced in the field work of the first phase of research, since simultaneously with data collection that phase, conclusion which was reached by analyzing depth interview, authors whose theoretical proposals could portray the reality expressed by respondents was sought.

The theoretical framework was developed in the design of the object and method of study are built simultaneously, caring logical coherence between the natures of both, and with the conviction of conducting research in social sciences (Pacheco, T., 2000 , p. 67) with respect to the educational field, especially the field of curriculum. From the vicinity of these theoretical constructs applied to the analysis of the specific conditions under study, a proposal that aims to be the discursive synthesis from which you can give explanation to the state of affairs and in the context of UAS, specifically cases developed studied: the Faculty of law and the Faculty of Civil Engineering (FDUAS and FIUAS), who integrated themselves entirely to the conclusion of the investigation by submitting the final report of thesis, which was defended in April 2005.

The proposed to explain how they influence changes in the culture of academics in university curricula so that they are transformed into flexible, open and integrated theoretical model is really a synthesis contextualized proposals of the aforementioned authors and product the second phase of research, involving the integration of elements defined in the first phase. Such elements were essentially academic culture and curriculum, seen from the dynamics of structural reconfiguration, due to the incidence of new ways of producing knowledge.

Those two elements or axes of analysis became interrelated subsystems to form a single system study in which the main entrance is the knowledge that flows into the institution. Knowledge is assimilated by the culture of academics and the currently prevailing conditions in the UAS, which can be seen as the result of a procedural mixture entremodo 1 and Mode 2.

Figure 1: Ideal model for explaining the structure of the culture of academic model



Source: Elaboración propia a partir de una síntesis de Burton Clark (1997) y Rocío Grediaga (2001).

Thus, the flow of knowledge enters the UAS and mobilizes the structural components of the culture of academics through dialectical processes in which both components proposed by Clark (1991), or those mentioned Grediaga (2001) are involved, the which may be categorized as brands that are superimposed on a representative number line, a continuous evolution driven by tensions between the knower and, therefore, of university curricula.

Figure 1 shows a kind of system hardware culture of academic and includes academic culture, political culture and administrative culture as the components under study. In turn, each of these three areas has three structural components: institutional, contextual and epistemic.

While the UAS is not evidence of academic culture only was found, and therefore the term culture of academics was adopted, it is clear that in this context the culture of academics is changing, so that you can build a rating scale in which, firstly, is the model of Clark and, on the other, the proposed Grediaga. This scale is part of an ideal model that represents the culture of academics UAS and encompasses both proposed by Clark

(disciplines) as at Grediaga (trajectories) component. 1 shows the meaning of the category culture of academics from its structural components.

This structure is a model created to monitor the principle of recursion is met, for each of the components of the culture of academics, medium areas in turn has three other internal components:

- The component epistémico. Representa the scheme of thought of the subject (individual or shared); It is what gives a particular view about the knowledge of all kinds (especially scientific); valid, forms of produce, apply and transmit or teach; on its general procedures and specific methodologies.
- The epistémicoes component defined, for purposes of this paper, as that which replaces the disciplinary component mentioned Burton Clark (1997) when he explains the structure of academic culture based on empirical studies conducted in developed countries; in the Mexican context, Rocio Grediaga (2001) has shown that the trajectories académicas influyen more in the composition of academic culture. Hence this research include the epistemic component to synthesize opposites.
- It is clear that Clark refers to the source of academic knowledge when speaking of scientific disciplines, and so does Grediaga (2001). For her, the source of knowledge of university academics in the metropolitan areas of Mexico, is the educational path of their leaders. For purposes of this paper, the epistemic component is itself the scheme of thought of academic, and not the source of knowledge that nourishes, produced or reproduced.
- The scheme is a more dynamic thinking that disciplines or academic careers notion; You can have more transformations motor and the source of these variations can be both the academic background of subjects as the development of scientific disciplines.
- The component institucional. El institucional component of the culture of academics is the contribution that institutional processes academics have done, so that they develop a body of knowledge with its own sense; It has to do with class consciousness of a specific academic institution. It involves the historicity of

business processes, socio-occupational roles, paths, the degree of commitment and participation in the social construction of values, beliefs, norms and myths.

- The component contextual. En general, the contextual component of the culture of academics is the contribution made by processes academic context, so that they develop a vision of knowledge; own view is that physical space. However, for greater accuracy, in this work a differentiation is made:
 - Environment. It represents the empirical immediacy; is the space surrounding the subject, his family and closest social and labor circles. It includes natural conditions such as weather, language and violence. The limit of the environment is tangible and can be the city, the institution or the state. The livelihood of its meaning is more anthropological (Austin, 2000).
 - Context. It represents the environment, but structured organizations and institutions. It also represents the economic, political, social and cultural processes that occur in these; In addition, the boundary of context is more flexible. It may be the Mexican political context that influences the culture of academics, to develop a way of doing politics; while the cultural context of Culiacan can, for example, have more influence on the development of ways to make the academy or manage their institutions. So the context is more flexible and refers to economic, political, social and cultural conditions to which is subject the existence of groups of scholars. It includes the contributions of civil associations, non-governmental governmental organizations; academic bodies and professional associations related to academic groups under study, in terms of knowledge, traditions and customs. The livelihood of its meaning is rather socio-political.
 - Geospace. It represents a wide circle in which the subject may have mobility to build a universe of relationships with a variety of elements of the world, through the compulsive use of mass media and navigating cyberspace. The limits of this component are totally volatile. The livelihood of its meaning is multidisciplinary.

Thus culture, academic, political culture and administrative culture, are minimally spheres of manifestation that make up the culture of academics and all of them, in turn, have the three components defined above (institutional, epistemological and contextual).

As already stated, this position was taken with the intention to achieve a synthesis between the proposed Burton Clark (1991) and Rocio Grediaga (2001), so that both the culture of the profession, such as national professional organizations and international, such as delimited Clark, form fields, areas of context and, for purposes of this investigation, have to do with the context.

Both Grediaga as Clark recognize the impact of the context and the institution in shaping what both called academic culture; meaning that the two authors give to these components is the same. The differences consist in the influence attributed to each disciplinary component, which has more to do with the type of training that scholars have developed.

The problem is the general and systemic vision of Clark, as not being recognized by Grediaga, take a position in a more individualistic view of ypone academic emphasis on the particularized study of academic paths, without recognition of a unique address, marked by the very act of an identity which is fostered by training given discipline. In any case, more than training, professional practice emphasizes Grediaga regarding academic practice.

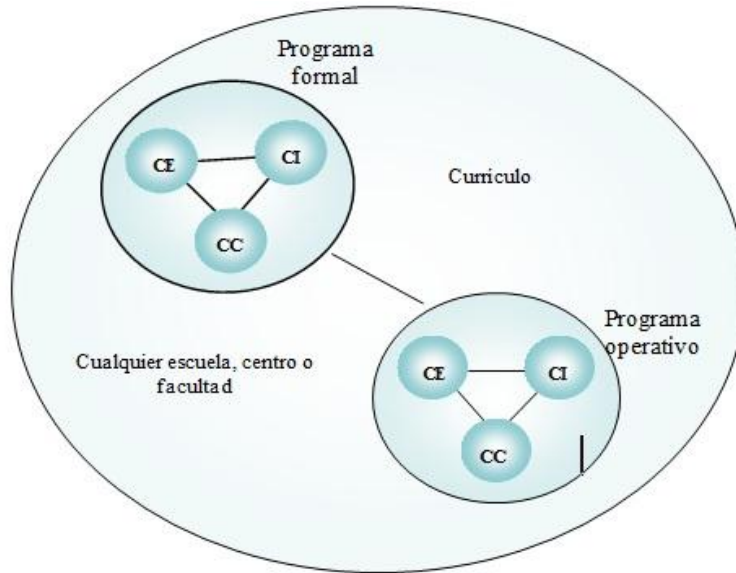
The curriculum: Well, the schematic representation of the whole culture of academics known as one of the axes of analysis that make the object of study, so it was necessary to deepen a similar construction to the other axis is had.

Curriculum to represent another counterpart to the previous scheme, which is diagrammed in Figure 2 was constructed; precisely that are homologous is allowing the principle of recursion in the categories studied system is met. This was methodologically therefore essential not to apply the principles of Systemic Theory (Bertoglio, 1992), could not sustain the argument he has done research on this approach.

Figure 2 graphically represents an ideal model; therefore, both the limits and the relationships between components at all levels are sharp. If the culture of academic culture is considered a system, then academic, political culture and administrative culture are subsystems or components, such as hardware of computer equipment.

But those are not its elements, as in classical systems theory all elements of the system are: inputs, outputs and processes. It's like software that gives specific utility (conditional functionality) at the same computer equipment (Bertoglio, 1992).

Figure 2: Ideal model for explaining the structure of the curriculum model



Source: Elaboración propia.

In Figure 2, the curriculum is understood in its broadest like all structuring the work of a school term; although many authors, like Posner (1998), distinguish various types of curriculum (formal curriculum, hidden, operational, null) For the purposes of this research were synthesized from the assumption that all curriculum has at least two components: the program Formal and operational (all omitted and what has been done, including the unscheduled).

Again, each of these two elements, in turn, presents the triad of components: epistemological, institutional and contextual, and therefore were defined for purposes of the investigation and with the principle of recursion systemic approach. This principle, when applied, symbolizes the possibility of a schematic representation of the meaning that charges one of the axes of research analysis (variable), viewed as a whole of interrelationships between the component parts, the theoretical flowcharting and empirically supported. This was done with the culture of academics (Figure 1).

The principle of recursion is then repeated for the other variable or axis of analysis that makes up the object of study (curriculum), the operation of conceptualization, that is, bring the dialectical synthesis to the state of said shaft to esquematizarlo (Figure 2), achieving and a structure homologous to both axes of analysis which are the subject of study (culture and curriculum) and without this inner nature of each is relativized.

If studied separately, culture or curriculum each constitute a system. The next step is to link them to outline the relationship between the two variables that make up the object of study (culture and curriculum). To do just that ligase applied the principle of recursion, so that both axes or variables have spheres of manifestation whose components are homologous: epistemic, institutional and contextual.

Already established and sketched the relationship between culture and academic curriculum has really built the theoretical model to represent the object of study and both variables theoretically go from being isolated systems become subsystems or components of the new system under study (the relationship between culture and curriculum).

Among the three areas or dimensions set curriculum (both formal and operational). Both spheres hardware structure the curriculum. Note in Figure 2 that the relations and boundaries are sharp. That is, in her curriculum has not been problematized.

The meaning of epistemic, institutional and contextual components in each of the areas of curriculum, is homologous to components that structure the fields of culture of academics, but in reference to either the formal curriculum or operating.

In the area of formal rationality of design, management and evaluation (management) curriculum is manifested; there become important selection processes of educational content and, above all, the curriculum and the curriculum structure according to Bernstein (1993). At the same time in the sphere of operating the forms that manifest the pedagogical relationship and become important processes of framing of knowledge according to the same Bernstein (1993). The operating area of minimally curriculum comprises the steps of decomposition, analysis and synthesis (recomposition) curriculum, whether carried out individually or in groups, during the review or development. This frames the processes of confrontation and consensus of scholars or groups of them, either with each other or against representatives of institutional bodies during decision-making on the design, evaluation and

management of the curriculum. Also includes áulica dimension, ie, is present at all levels of analysis of the institution. It is the curriculum as a process.

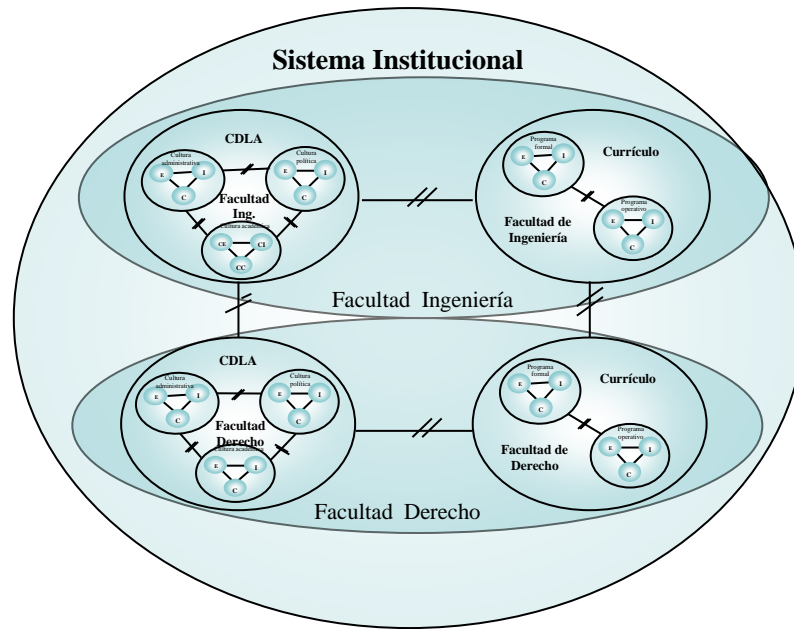
The sphere of the formal curriculum involves the point of departure and arrival or explicit product of processes operating curriculum; is the explanation of the plan and curriculum from the foundation to the regulations. Includes analysis of the needs of the context, subjects, disciplinary fields, professions, market research, mobility of individuals in the levels of the education system and the labor market. furthermore clarifies their own strengths and weaknesses, its administrative, pedagogical and didactic model forms that will evolve and the conditions that foster this development, how will your evaluation be performed, as well as the legal framework for its operation, among others (SEPyC, 2004).

Then again attention to the principles of systems theory with respect to the subject matter of this investigation was necessary to answer the following questions: what is the system studied?, what gives identity ?, where are its limits?

The unit of analysis was the curriculum. The curriculum was designed problematized when moving, when it became evidence was found. Then he placed in relation to the culture of academics. But that evidence, in a first field, was obtained from the records of H. CU for the entire institution, so the system boundaries were those of the institution itself. UAS case study during the first and second stage of the investigation was then performed.

We used the same research design (case study) in the third stage of the investigation, only two different institutional settings; was a study of two cases, which meant the existence of a single systemic design that claimed dual identity (Faculty of Law and Faculty of Engineering). Figure 3 shows the relationship between culture and curriculum. So far there are two possible interpretations: first, that the model is generic, applicable to various well-defined cases; and the second, that the model is specific to the UAS, since it was created from institutional constraints. Pretending to increase their degree of applicability or generality imply another full investigation. Figure 3 shows the object of study as a system consisting of subsystems that were the cases analyzed.

Figure 3: The object of study and problematization



Source: Elaboración propia.

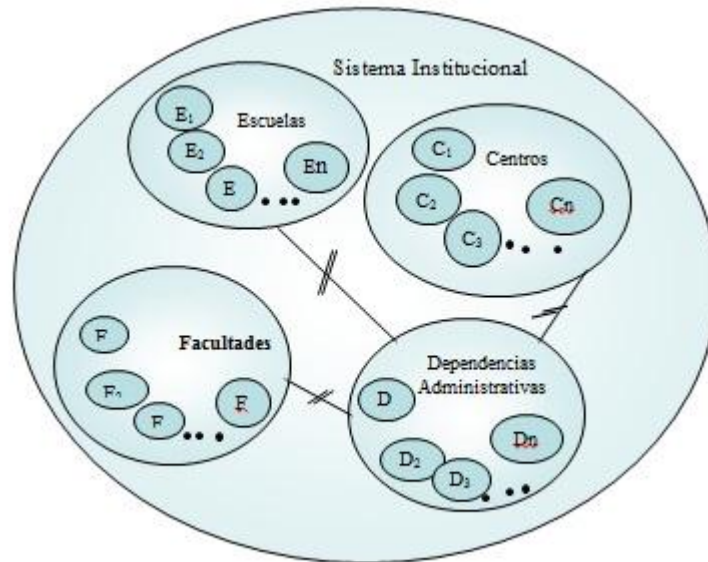
The system is studied each of the elongated ovals in horizontal. Nótese position that relations are not established only with lines; but these interesféricos connectors have a pair of transverse small problematised indicating a relationship.

That is, the relationships shown in Figure 3 away from those established in the ideal model. In saying problematized relations alluded not that these relations are good or bad; misleading or accurate; but these are precisely the object

Study and this has to do with the dialectical approach to the problem of research is not given, but is constructed simultaneously with its method of analysis.

The sphere called institutional system appears here only to position the limits of the systems that have become units of analysis. But in this figure the components are not seen. Figure 4 displays itself.

Figure 4. Hardware institutional system.



Source: Elaboración propia.

The structure and thus the flow chart of UAS, are made by a variety of centers, schools, colleges and administrative units.

Figure 4 does show the components of the institutional system. As with all graphic schemes, it is obvious that these models represent reality has many other components and relationships; however, it is precisely one of the advantages of the systems approach to make those cuts from reality, to build the systemic expression (exemplary) the object of study.

While the components of a system structure what is here called hardware, when the radiograph of that structure that these functions are conferred as part of a whole set software is obtained. That is, the functions of the components of a system result in systemic elements. It is understood by softwareal set of elements (functions) with relations between these functions and internal system processes. The sum of these elements, to be interrelated according to their hierarchical functions, is not equal to the systemic whole. That is, the principle of synergy of Classical Systems Theory (Bertoglio, 1992) is met.

Hence it was necessary to apply the basic principles of classical systems theory to this research, for which a summary about the concept of system and its properties synergy and recursion was performed.

The term system is defined by Oscar JohansenBertoglio (1992) as: "The set of coordinated parts and interaction to achieve a set of goals." The system boundaries determine the relationship of this with their environment or environment. A system must have the characteristic of synergy; that is, that the whole is unequal to the sum of its parts. What makes the difference is to include relations between parties.

Systems, viewed from the logic sets, have different levels of hierarchy, so that different batches of systems as subsystems be ranked, and suprasistemas systems. The principle of hierarchy to find generalities (similarities) and specificities between systems. To analyze the possible recurrence of systemic scale structures observed if a systemic hierarchy presents or not the property of recursion, which states that the lower systems are at the top.

Then, the system is a set of objects (components) that have a property in common, according to which agglutinate, and having a form of organization. The organization is a configuration involving location and value.

The connotation of the term object refers to a space beyond the three-dimensional and includes the temporal dimension; so that, for example, an idea or object is a number.

Considering the above, it is concluded that a "system" has minimally two structural dimensions:

- Hardware. The components of their relationships with each other and with the environment.
- Software. Of its elements or functions. The elements are of three types: inputs, outputs and processes.
- The relationship between hardware and software is given by the set of functions of each component.
- For clarity the following types of systems were developed:
- Physical systems. Those whose hardware included as components solids and substances which are governed by the laws of conservation of mass and energy, as well as all physical principles. Therefore, your software involves input and output elements of mass and energy, as well comoprocesos transformation (of the operating conditions), which have to do with the transfer of mass and energy.
- Inert systems. They not include living matter between its components.

- Biological systems. Yes they include living matter between its components. They are governed by the laws of biological disciplines in all its ramifications.
- Social systems. Those systems created by man. Your hardware involves groups or human organizations.
- Social communication systems. Their software is made up elements of input and output information and processes that have to do with the transmission or transfer of such information.
- Education systems. Its software is composed of input and output elements of knowledge and transformation processes of the operating conditions of the system that have to do with the transmission or transfer of such knowledge.

Note that this is a respecter of different educational system which is commonly used to refer to the structure and organizational infrastructure of education, at the level of nation states. Here, the meaning comes from the classical theory of systems and in terms of Bernstein, is a supra media.

The difference between physical and social systems is that the former behave according to rigid principles, for example, the law of conservation of matter and energy as principles applicable to physical systems: the mass or energy are not created nor destroyed, only transformed; so these can only include transfer processes and no creation or generation, as well as control mechanisms contemplate these transfer processes.

In social systems, as its inputs and outputs have to do with the information or knowledge and these are not bodies given once and for eternity, they may include mechanisms for the creation or generation of information and / or knowledge, as well as other control these processes.

As for the property of entropy in the system studied, it means such property that has any system to be tending to vary toward decomposition, disorganization, or disorder and can be measured by scales created for this purpose.

It is assumed that this property should always be present in any system, it is characteristic of the life cycle of every object. Then, entropy makes the whole system, by itself, evolve into states of greater disorder ever, reaching a peak involving death.

In the specific case of a team consisting of components and elements of the educational environment, movement or transformation processes in the knowledge that it flows system will take place while there is knowledge gap between stakeholders involved in academic activities; entropy manifests as the energy flow directing such activity to a transfer of knowledge so that all players reach their level of ownership, in which case the flow ceases and the system becomes dysfunctional to reach deconstructed, disintegrate or die.

If there is equal knowledge, there entropy and the system breaks down. This happens with closed, inertial systems. If no difference in knowledge, there is only entropy, but "negentropy" or negative entropy; the tendency to avoid balance.

The system requires then generate knowledge gap by importing resource and entering new knowledge transformation processes and generate a new equilibrium; so that control mechanisms are required to recirculate a portion of that knowledge generated, so that this allows the continuity of the systemic functioning.

The control mechanisms of a well understood education system should be inclined to boost their academic career of socially organized actors, impacting assessment processes, with the mediation role between the administrative subsystem and the management.

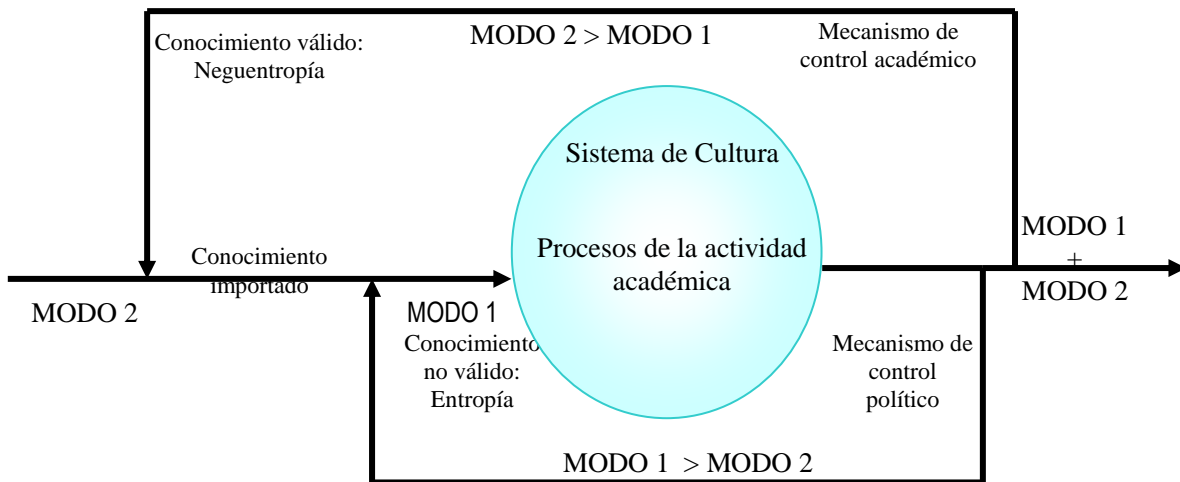
The political sphere of culture of academic becomes visible as the container of knowledge; does not let new knowledge and is manifested by the presence of groups of academics who stand as the scientific community that validates the knowledge and want to keep a (static) difference between actors by decree. That is, they want to keep the system alive, keeping the original dispute, regardless or transform. Some specifics of the model created to explain the system of culture of academics in the UAS are:

- For software system culturase entiendoel set of inputs, outputs and processes that occur within each of the components and subsystems studied system.
- Processes are those that take place during academic research and teaching, with all its implications. During these processes manifest contradictions between the political and academic spheres of culture; from defending the inertial position; you want to keep, versus the dynamics of change; the trend of greater statistical probability is the direction of all.

- The inputs and outputs are a flow of knowledge. The knowledge that the system of culture matters, can be given through the explanations given by Burton Clark (1997) or of Grediaga (2001). The problem is whether or not manifest the presence of what Gibbons (1997) calls mode2.

Culture manifests itself as a system, but entering in relation to another (curriculum) both become subsystems of a whole under study.

Figure 5: The culture system software

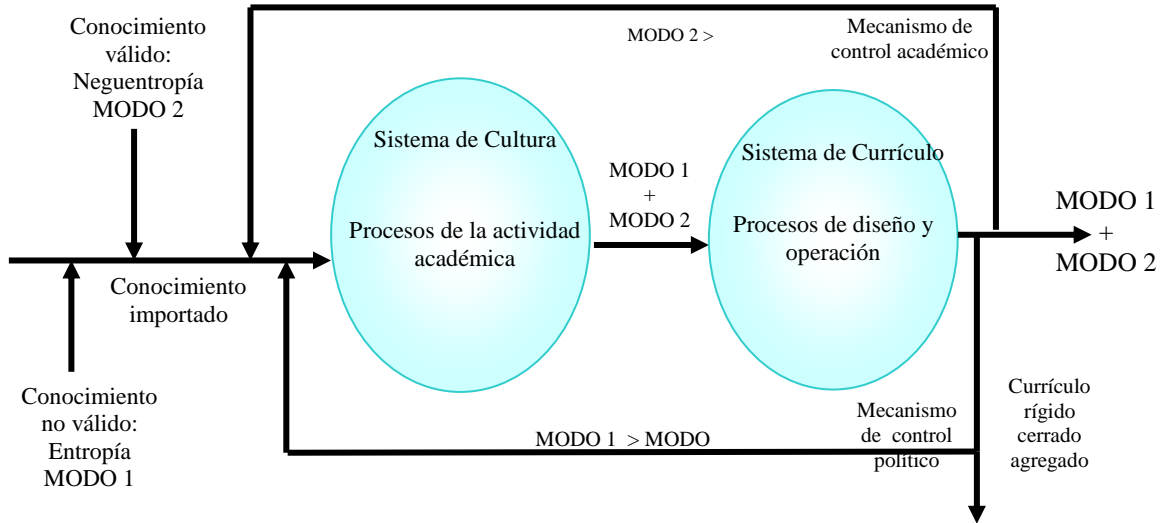


Source: Elaboración propia.

Sociocultural processes of knowledge problematize when within the culture of academics, the political sphere is manifested above the academic or administrative sphere; this causes a lack of technology is evident in the school system, which results in an absence of operating rules or standards for the interaction of the spheres.

The following figure shows the two subsystems (culture and curriculum) and highlights its elements (inputs, outputs and processes). This deficit of technology is manifested by conceptual gaps and not having the vision of the curriculum as a whole structuring of traditional teaching and research university functions, which must be integrated into the daily operations of academics to take them to establish standards and legitimizing criteria from research should be taught how to teach how to investigate.

Figure 6: The system software studied



Source: Elaboración propia.

If groups of academics fail to actively participate in decisions on formal and operational curriculum, they can not conduct research on curriculum, or more generically, education or scientific-disciplinary, and then the findings fall into individualism.

Also, if the body does not conduct academic, it is not generating new knowledge and no elements to make prospective students researchers continue transmitted from generation to generation the professionalizing nature of the curriculum.

From the pedagogical reflection, in the exercise of educational research it is said that the function of teaching follows the educational purpose of socialization, while the role of research is aimed at the production of new knowledge. In education both ends are theoretical, in practice they are implemented didactic forms are differentiated according belong to one or another pedagogical approach. (Florez, 1995; Posner, 1998).

The teacher-student-content ratio determines their independence, that is, for more educational research progresses, any order or production socialization of knowledge can establish and regulate the didactic forms. The diversity of these produces the confrontation between academic, because from their frame of reference frames each teacher ranks and knowledge that seems valid; unless everyone exercising didactic participate in the

establishment of educational research and educational rules that will govern the work of a particular school; that is, see the curriculum as an integrating all academic practices socially constructed. In other words, the social construction of curriculum weakens the classification and framing of knowledge if the actual participation of all academics is plural and constant; otherwise, only it gives greater power who exercises leadership for this legitimizes their proposals.

Here is a complex relationship between academic practice conceived from the field of the epistemic; or, from the field of politics. In the first, the validity of knowledge becomes important, while in the second the problem is legitimacy. This is important to understand the difference between how they should integrate work teams to be efficient, effective and competitive; and secondly, how to conduct an interdisciplinary, cross-disciplinary, multidisciplinary or multidisciplinary academic work (Ortiz and Padilla, 1995).

A discipline has an object of study, and a language based on concepts, which comprise interlocking constructs (theories) and procedures appropriate to the nature of the object.

According to Dogan and parhe (1993), currently the disciplines support the process of hybridization, as new problems facing humanity can not be studied only from the theoretical core of one of them; then it follows that if a scientific problem is approached from the theoretical core of a discipline, and then delves into his study to transcend into another discipline to cover the whole of the problem, is performing a transdisciplinary practice. This can be done one person or more.

If position is taken in the vicinity of two or more disciplines to synthesize concepts and procedures and adapt the theory to the study object since the beginning of scientific procedure it is conducting an interdisciplinary practice; also this can be done one person or more.

There is a difference between a project and a research program. The first has a (even entire protocol) unified theoretical framework, while the second may have more than one theoretical framework, depending on differences from one to another purpose of the investigation. A research program can be addressed by a team of researchers from maneramultidisciplinaria; if this happens who coordinates it is at the center of relations and deals with each of the participants. If there is sufficient connection between all researchers and the vision of each influencing others out joint analyzes are carried and theoretical and

practical position with reference to the object being studied is adopted, then it is carrying out a practice deftly. This concept comes from plurality and its origin is in the field of political relations between the actors.

With regard to the cases studied, for the social construction of curriculum it requires a technology that fosters internal relations of culture-curriculum system, differentiated by their own linguistic codes semantics of disciplinary fields that give identity to each of careers impart an institution.

The technology involves both codes and are the inputs that feed the studied system (each race or curriculum) and convert it into subsystem, taking the institutional environment, the meaning of the category system.

It is said that the culture-curriculum system presents a technological deficit, because the manifestations of part of the culture of academic political sphere do not obey rules regularity that relate to manifestations of academic culture, tending to the operation of binary codes as success / failure (for the field of evaluation); Rigid / Flexible (for the field of curriculum); closed open; added / integrated.

Broadly speaking, in that it consisted the proposed model. To generalize or contextualize it to other areas is necessary, first, to analyze the conditions prevailing in such contexts and identify areas of manifestation are placed on the structure, both subsystem culture as curriculum subsystem, and integrate the new system under study. With what has been presented here it is expected to have reached the goal of this article explain how a theoretical model was constructed to analyze the relationship to culture and curriculum at UAS, both components in motion, changing and intimate relationship. Moreover, it is expected that this exhibition can also serve other researchers who question how to construct a theory in social sciences.

Applying this same model to study two cases (right and civil engineering) trafficking in another work the same author: Culture and curriculum: two cases in the UAS.

Discussion

The empirical reference during the first two phases of the investigation was the UAS as a whole, defining terms and establishing relationships that were prioritized through interviews, in addition to building the culture of academic term. the Faculty of Civil Engineering and Law, for being those that provided further evidence of having made multiple curricular changes over the period and is the focus of discussion within the theoretical framework: In the third phase only two cases were studied.

Structuring the theoretical framework of research and dynamics of production of scientific knowledge, he explained from the perspective of Michael Gibbons (1997), an author who identifies as primary sign of the transition millennium configuring a new way of producing knowledge , denominadamoto 2.

Mode 2 is born within the traditional mode (mode 1) to produce scientific knowledge or scientific method, whose rigidity and served preponderantly experimental support for the validity and reliability of the products obtained. Within this tradition, gradually have been developing and evolving some procedures used by academics, researchers, businessmen and entrepreneurs to make way for the emergence of mode 2, which has sometimes been openly developed, while others have been converted mode 1.

The process of knowledge in mode 2 is characterized in that it is carried out in the context of implementation; It is transdisciplinary and heterogeneous; your organization is heterarchical and transitory; It has another way of quality control (Gibbons, 1997, pp. 14-24). Meanwhile, Nowotny and Scott (2002), co-authors Gibbons, talk about the impact of the extended university in the processes of social scientization shaping of society mode 2 which can be interpreted as a synonym for knowledge society, term used to describe a social structure in transition from industrial economies to those based on knowledge. Society conocimientose caracterizapor compulsive use of new information technologies, applied to communication for the creation of new knowledge in the field of education, is called knowledge the body of knowledge that constitute the curriculum, each discipline pro knowledge is integrated around the same object in constant innovation (Foray, 2002).

The contributions of Gibbons and his colleagues were very useful, because government policies for the development of the ES favor the emergence a new academic culture since

prioritize the search for flexibility of educational programs, consisting precisely in the inclusion of new forms to gain knowledge; for that universities are recommended to constantly review the curriculum of the available races.

Culture and curriculum: From there the two main areas of analysis were defined. Their relationship was the subject of study, under the hypothetical assumption that the changes brought about in academic culture, in turn, promote the process of curriculum transformation. That is, they are visualized both axes analysis (conceptual categories or variables) interrelated, moving in concert and altering each other.

The next step was to look for evidence of such movements. How to prove that academic culture is changing? Or, what evidence to present about curriculum changes? Between the two, the second one was more available to the researchers, so they decided to make thorough review of the minutes of the University Council (H.CU), the highest authority of decision making in the UAS, from that time (December 2002) back to where it no longer had continuity in the minutes of H. CU (January 1993); thus the object is temporarily delimited study a decade, including a year later in 2003, due to considerations. Luego academic curriculum changes were separated and agreements including those they had to do with changes in university curricula, for have a solid starting point about the behavior of at least one of the variables that make up the object of study. That inquiry established eleven months of intense work, but already having evidence that the UAS multiple processes of curricular transformation occurred, this tracking all academic agreements H. CU, classifying curricular changes concerning the powers of law and engineering, carrying out 14 and 12 respectively during the decade between 1993 and 2003, proceeded to search the certainty that indeed the culture of academics in the UAS, was also transformed.

During the first phase of the investigation, as an exploratory study were conducted 13 key informant interviews (at the end of which systematized only 10). As it was in-depth interview, this technique is linked to the sociological and anthropological essential to collect information with stakeholders about their culture to meet their beliefs, rituals and lifestyles according to Rodríguez (1999). At the time of applying, be against the respondent, only the major topics were stated. Hermeneutics was the interpretive tool and hermeneutics seeks to create a unified system of meanings, the idea that all social corresponds to the entire whole of the author and his work (Martinez, 2001).

The selection of informants was conducted according to the following criteria: ex-rectors willing to work; academic active with 20 or more years old; savvy university history; with production written about the university and who had studied the university model. It was the first such mandatory criteria.

Teaching is conceived as an academic activity consisting operate a specific educational program, which takes shape through the entire curriculum called *outliner*.

The curriculum was conceived as the whole structuring of academic work of an institution or agency and involves an intimate relationship with organizational activities and knowledge management. This is a notion of moving curriculum, considering it as a process and product.

The formal curriculum is then the exemplary expression of the academic organization in the educational institution and underpins management tasks (planning, socialization, management, monitoring and evaluation) porque establece an intimate relationship between them; therefore, to become the object of study curriculum requires a clear delineation of its dimensions.

Based on the definitions and information obtained from the theoretical and empirical part provided by respondents, a breakthrough was achieved in a part of the object of study (curriculum). It was time to delve into the other axis of analysis: culture.

The culture was originally understood as a set of guidelines shared by groups of actors behavior, and la cultura académica como a specific group formally dedicated to teaching and / or research in a given institutional space.

In addition, as part of the theoretical framework they approach Burton Clark (1991), who speaks of academic culture structurally composed of three elements (context, institutions and disciplines) with reference to developed countries resumed; meanwhile, Rocío Grediaga Kuri (2001) supports two of them (context and institution), but puts into question the influence of the structure of science and ways of producing knowledge in shaping an academic culture characteristic of universities within the Mexican context. In concluding that in Mexico this configuration does not greatly influence the composition of academic culture, Grediaga proposes that the third component of this is academic career.

However, when this research was done and taking as reference precisely to the UAS, it was not fully agreed that the theoretical models explaining none of these authors could portray the reality that was foreshadowed in the institution. Hence key informants, knowing the history of the UAS, and how this has shaped his university model should be elected. After the first depth interviews were applied, while tracing the terms culture and academic culture was made.

The interviews corroborated that to study the processes of the UAS, it was not enough to import an already given and apply it in this context theoretical model, so they decided to build its own model from a synthesis of authors on the subject. So, after tracking the various meanings of culture and specifically academic culture, the term culture of academics was adopted to differentiate the meaning of that category of what Burton Clark (1991) calls the academic culture in developed countries and the meaning Rocio Grediaga (2001) gives to that term by studying the academic trajectories in Mexico.

It was necessary to carry out a very careful analysis to achieve conceptual precision. For example, if the goal was to build a theoretical model by using the term model, which is polysemic, it was necessary to explain that generically understood as such a synthetic expression of a reality studied expression that makes abstraction of the component elements of that reality and the relationships between them.

Thus the concept model was used both as meaning representation as ideal perfection and charged the following meanings:

- **Theoretical Model explicativo.** Es synthetic expression that describes a theoretical approach; It represents the ideal conditions in which a phenomenon occurs, to verify the theory in explaining their characteristics and can be used to predict behavior of real systems, through a logical language by which formal systems (Yurén, 1990 are described).
- **Model universidad.** Es an institutional structure based on an array of relationships between at least five elements: political philosophy, setting the binomial University-state form of financing, form of student admissions and teacher training (Interviewed 107, 2003).

- **Model educativo.** Evoca the ideal training that is configured in a certain time and place. It reflects the national project and the type of man to form. In Sinaloa, for example the current educational model is expressed from the Ministry of Public Education and Culture in the State of Sinaloa (SEPyC). For other meanings associated as "academic model" or "model curriculum" you can see the glossary in Appendix 1 of this document.
- **The ideal model of Higher Education Institution (HEI).** It is one that is based on the principles of relevance and quality according to the ideal concretized in the curricula of flexible, abierto e integrado as virtues that each PE of public universities in the country is not about or on its evolutionary path, according to conditions of their operation.

The main idea of the research already taking shape and wanted to get to build a theoretical model to explain the behavior of the culture of academics of the UAS, intertwined with the curriculum changes, for which had to study how the UAS has been built for more than a century its own model of public university, until a time when the dynamics of production of new knowledge and external guidelines from international and national policies for the ES, will require public universities get rid of their old structures and set up a new model of IES.

On that basis it had to expand on how the new dynamics of knowledge production make this set of relationships emerge called knowledge society. That meant a new term tracking for society.

The notion of society involved understanding the existence of a network of economic, political, purely social, cultural and labor relations, among actors of various kinds. By actor was considered from an agency, institution, to a subject or group of them.

The complex notion of knowledge became clearer by the historical tracking of the term, being in the postulates of Emmanuel Kant (Santillana, 1998) the existence of two dimensions of knowledge, a dynamic and a static and where this could be viewed as a process and, simultaneously, as a product, reaching an integrative concept of both dimensions, ie knowledge as a construct; as a set of own knowledge already built a disciplinary field; or, interdisciplinary, multidisciplinary or transdisciplinary, which is

under construction following some methodological criteria of validity under a given scientific paradigm.

The results of the research have thrown that there is an intimate incidence between culture and curriculum, which affect and transform each other and taking only the context and its components could perform three separate studies that help to have an X-ray more accurately how it happens this phenomenon for the case studies of the faculties are more detailed and accurate.

Conclusions

The questions raised at the beginning of the investigation were trying to find ways to show changes in academic culture and curriculum. After attending research literature and consider the variables defined and, above all, deep interviews were conducted, no evidence of a unique academic culture was found in the UAS. They were taken into account the characteristics and peculiarities that distinguish it, to the point that it was necessary to create a concept from a thorough analysis of the theories of authors who were considered in the design and synthesis, thus it was concluded that more than an academic culture, the UAS has a university culture.

You can not talk about taking a model or a scheme, the result of an investigation with its own context and specific attributes, and adjust to the reality of the UAS. Throughout its hundred years of history, he has experienced different dynamics of work and contexts that have allowed it to build the reality of today.

In that sense, the culture of academics has been understood as several contributions that took place through the processes of academic context in which it was possible to develop a vision and perception of knowledge in an environment, context and Geospace. The context and the institution itself shape the culture of each institution and academic lives a reality from its own dynamics, so this work is undoubtedly a valuable contribution.

The culture of academic serves as an outliner all their chores, both in management and in its execution, and it is precisely the UAS university culture that makes this curriculum is so heterogeneous. Two cases were studied only in schools that showed more evidence that this phenomenon occurs, ie, the same systemic design that claimed dual identity at the Faculty of Law and the Faculty of Engineering. Still, the figures of the

results tend to behave in the management and implementation. Culture and curriculum are intimately linked.

Undoubtedly, the generic model can be used to study other cases individuals completely different, and face a qualitative research *será esta* which requires the researcher to the creation of various tools, making the interdisciplinary nature of the research is palpable. The present *proyecto* had to be designed to analyze properly the particular institution in question, and equally necessary to manufacture specific tools to facilitate the analysis of others.

However, the above findings can not be ignored the imminent need for appropriate technologies are incorporated into the school system, since there are no rules of operation for which they are appropriately considered in the areas of analysis. Technology is a key to building a proper university culture piece and, therefore, has an impact on the culture of academics. Either because they have or because lack of it, affects the quality of the knowledge they generate and, above all, in the way they convey, which is reflected not only in the student reality and research, but also in professional . This is so even though it is clear that in the political sphere failures are corrected if the context, in that sense, allows researchers and teachers have better resources based on their connection networks.

Culture and curriculum relate that way and transform into these two cases; however it should take the *afond* study to address the new questions arising in the light of these findings.

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