

**Efecto de las políticas educativas en la formación de  
investigadores en los programas federales de doctorado en  
ciencias administrativas en México**

*Effect of educational policies on the training of researchers in federal doctoral  
programs in administrative sciences in Mexico*

*Efeito das políticas educacionais na formação de pesquisadores em programas de  
doutorado federal em ciências administrativas no México*

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## Resumen

El objetivo de esta investigación fue analizar los efectos de las políticas de productividad y competitividad en la formación de investigadores en los programas federales de doctorado en ciencias administrativas en México. Se diseñó un modelo gráfico que favoreció el análisis teórico considerando cinco perspectivas y un análisis empírico con tres programas federales de doctorado en el área de la administración. El estudio fue cualitativo bajo la teoría fundamentada, con el uso de guion de entrevista semiestructurada y el apoyo del programa computarizado Atlas Ti. Las principales conclusiones de la investigación fueron que estas políticas están influenciadas por hegemonías mundiales, organismos internacionales y empresas transnacionales con ideas neoliberales, lo que provoca efectos perversos y prácticas inadecuadas en la investigación.

**Palabras clave:** doctorado, formación de investigadores, norma académica, política educacional.

## Abstract

The objective of this research was to analyze the effects of productivity and competitiveness policies in the training of researchers in federal doctoral programs in administrative sciences in Mexico. A graphic model was designed that favored the theoretical analysis considering five perspectives and an empirical analysis with three federal doctorate programs in the area of administration. The study was qualitative under the Grounded Theory, with the use of semi-structured interview script and the support of the computerized program Atlas Ti. The main conclusions of the research were that these policies are influenced by global hegemonies, international organizations and transnational corporations with neoliberal ideas, which causes perverse effects and inadequate practices in research.

**Keywords:** doctorate, training of researchers, academic standard, educational policy.

## Resumo

O objetivo desta pesquisa foi analisar os efeitos das políticas de produtividade e competitividade na formação de pesquisadores em programas de doutorado federal em ciências administrativas no México. Foi elaborado um modelo gráfico que favoreceu a análise teórica considerando cinco perspectivas e uma análise empírica com três programas de doutorado federal na área de administração. O estudo foi qualitativo sob a teoria fundamentada, com o uso de um roteiro de entrevista semiestruturado e o apoio do programa de computador Atlas Ti. As principais conclusões da pesquisa foram que essas políticas são influenciadas por hegemonias globais, organizações internacionais e corporações transnacionais com idéias neoliberais, o que causa efeitos perversos e práticas inadequadas na pesquisa.

**Palavras-chave:** doutorado, formação de pesquisadores, norma acadêmica, política educacional.

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## Introduction

PhD studies in the area of administrative sciences are conceived as the formation of a high level researcher capable of generating original knowledge in the solution of problems in organizations and society. In this journey, there are several factors that influence it, as well as the complexity it faces in its management.

For several decades, educational policies have established indicators and goals that alter the research scenario, where interest is based on productivity and competitiveness, providing stimuli that induce to generate perverse effects in the training of researchers (Fresán, 2013) . Likewise, these policies generate contradictions, because their strategies do not consider knowledge about pedagogical processes or heterogeneity; what they are looking for are common objectives and, as a consequence, they sacrifice quality (Sánchez, 2012). So in the higher education institutions (IES) business designs are established (Ibarra, 2006) and, once again, the sense of quality and the academic exercise is distorted (Topete, Winfield and Bustos, 2015).

The effects produced by these policies in the training of researchers are considered complex and multifactorial: it is not a static phenomenon and requires the analysis of its interrelations, currents and trends. Therefore, to deal with this social phenomenon, it is appropriate to do so through qualitative research (Hernández, 2012). And from this the question arises the following question: What are the effects of educational policies on productivity and competitiveness in the training of researchers in federal doctoral programs in administrative sciences in Mexico?

This study offers theoretical and empirical elements to be considered for the creation and implementation of educational policies in the training of researchers, as well as elements to reflect concerning institutional management and decision making in doctoral programs. It offers an overview of the realities present in the process of training students, teacher researchers, thesis directors and coordinators of doctoral programs in administrative sciences, obtained from the life experiences of the actors involved.

To analyze and understand the state of the art that preserve the effects of educational policies in the training of researchers, the representation of Topete (2012) was retaken, specifically its diagram of the interrelations between social structures, groups of researchers and researchers. From there, and considering Yurém (2002) and the mapping methodology of Creswell (2005), a graphic model was devised as a strategy for observation, identification, reflection and analysis of the realities found. Likewise, inductive approaches typical of the determined reality were made, with which the particular elements of the phenomenon were discovered, as well as the processes and practices that affect the training of researchers. This allowed us to generate perspectives of analysis when considering theoretical and normative aspects, and an intentional look was obtained in the orientation and construction of the problem, besides revealing the qualities and the categories that guided the evolution of the research.

Five perspectives organized from the general to the particular were considered: 1) global influence; 2) the creation of educational policies; 3) the alignment of federal and institutional programs such as the National System of Researchers (SNI), the National Postgraduate Program of Quality (PNPC) and the scholarships of the National Council of Science and Technology (CONACyT); 4) the research groups; and 5) the process of training researchers. It is worth mentioning that each perspective allows a deep study, however, for this research work it was

important the interaction of the elements that intervene from the educational policy to the process of training researchers (see figure 1).

**Figura 1.** Modelo para el análisis de las interrelaciones existentes en la formación de investigadores



Fuente: Elaboración propia con base en Topete (2012)

## Method

The theoretical analysis allowed to understand in depth the phenomenon studied and revealed that the references deal with the life of the people, the experiences, the behaviors, the organizational functioning, the social interrelations, the currents and tendencies prevailing in the time. Dynamic and non-static factors were considered and the needs of the being faced with the world were observed. Based on this theoretical analysis, it was determined that the means of quantification are not consistent with the object of study, so it was determined that qualitative techniques were the most appropriate, especially those oriented by the methodology of the grounded theory (Strauss and Corbin, 2002), to create an interpretation and understanding of the realities found from subjectivity in the dimensions of epistemology and ontology as expressions of being (Vargas, 2015).

From the graphic model of the interrelation of educational policies with the training of researchers, five perspectives of analysis were inferred, which have already been mentioned above. And from the perspective of these perspectives, the categories and research questions that surround the research instrument were derived (see table 1).

**Tabla 1.** Matriz de congruencia

<b>Perspectiva de análisis</b>	<b>Categorías</b>	<b>Preguntas específicas de investigación</b>	<b>Preguntas para instrumento de investigación</b>	<b>Preguntas para funcionarios CONACyT</b>
<b>Global</b>	Influencia global en las políticas educativas nacionales	1. ¿Cómo influye o impacta la globalización en la creación de las políticas educativas nacionales para la formación de investigadores en los doctorados en ciencias administrativas?	1. ¿Cómo influye o impacta la globalización en la creación de las políticas educativas nacionales para la formación de investigadores en el programa de doctorado?	1. ¿Cómo influye o impacta la globalización en la creación de las políticas educativas nacionales para la formación de investigadores de los programas de doctorado en el área de la administración?
<b>Nacional</b>	Efectos de las políticas de productividad y competitividad y formación de investigadores en la formación de investigadores	2. ¿Qué efectos provocan las políticas de productividad y competitividad en la formación de investigadores en los doctorados en ciencias administrativas?	2. ¿Qué efectos provocan las políticas de productividad y competitividad actuales en la formación de investigadores en el programa de doctorado?	2. ¿Qué efectos provocan las políticas de productividad y competitividad (PNPC y SNI) en los procesos de formación de los programas de doctorado en el área de la administración?

<b>Institucional</b>	Gestión de las políticas institucionales en la formación de investigadores	3. ¿Cómo evitan las prácticas inadecuadas en el proceso de formación de investigadores en los doctorados en ciencias administrativas?	3. ¿Cómo se evitan las prácticas inadecuadas en el proceso de formación de investigadores en el doctorado?	3. ¿Cómo han logrado evitar las prácticas inadecuadas en el proceso de evaluación y seguimiento del PNPC y del SIN?
		3.1. ¿Qué estrategias consolidan a los programas de doctorado en ciencias administrativas siendo estos formadores de investigadores?	3.1. ¿Qué estrategias sugiere usted para la consolidación de los programas de doctorado en administración siendo estos formadores de investigadores?	3.1. ¿Qué estrategias sugiere usted para mejorar el PNPC y el SIN para fortalecer a los programas de doctorado en administración siendo en administración siendo estos formadores de investigadores?
<b>Grupal</b>	Interrelación de los grupos de investigación	4. ¿Cómo es la interacción de los grupos de investigación en el proceso de formación de investigadores en los doctorados en ciencias administrativas?	4. ¿Cómo describe la interacción de los grupos de investigación en el proceso de formación del programa de doctorado?	4. ¿Cómo describe la interacción de los grupos de investigación de los programa de doctorado del área de la administración que participan en el PNPC y SNI?
<b>Individual</b>	El proceso de formación de investigadores	5. ¿Cómo desarrollan autonomía, identidad y escritura académica	5. ¿Cómo logran que los doctorantes desarrollen su autonomía,	5. ¿Cómo el proceso de evaluación del PNPC y del SNI contribuye en la formación de

s original en los identidad y realicen investigadores para doctorados en ciencias escritura académica lograr competencias administrativas? original? investigativas en los programas de doctorado en el área de la administración?

<p>6. ¿Cuáles son las nuevas formas de trabajo académico para la formación de investigadores en los doctorados en ciencias administrativas?</p>	<p>6. ¿Cuáles considera que son las nuevas formas de trabajo académico para la formación de investigadores en el doctorado?</p>	<p>6. ¿Los programas del PNPC y del SNI estimulan el trabajo académico colaborativo para la formación de investigadores en los doctorados?</p>
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Fuente: Elaboración propia

Given that training as a researcher is a process by which the person involved is transformed and enriched from the knowledge of other researchers, six types of key actors were established: PhD program coordinators, thesis supervisors, graduates and experts with more twenty-five years of experience as academics, coordinators and other functions, all of the doctoral programs in question; the remaining pair includes academics from other doctoral programs and other areas of the IPN and officials of the CONACyT PNPC (see table 2).

Each of these positions provides important elements to establish an overview of the effects of productivity and competitiveness policies in the process of training of doctors in administrative sciences. As regards the experts, their experiences and opinions can be compared with the participants in the programs studied, as well as with the officials of the CONACyT PNPC, who provide an approach from the makers and direct applicants of the policy, with the intention to understand a greater range of positions, interests and influences.

**Tabla 2.** Actores clave para la investigación de campo

Núm.	Actores	Descripción
1	Egresados	De cada programa de doctorado, por estar en el proceso de formación.
2	Directores de tesis	De cada programa de doctorado, por dirigir parte del proceso de formación.
3	Coordinadores del programa de doctorado	De cada doctorado, por gestionar institucionalmente el programa.
4	Expertos del área	De cada de doctorado, por la experiencia de al menos 25 años en distintas funciones de cada uno de los programas seleccionados, incluso el puesto de coordinador del mismo.
5	Especialistas	Por ser investigadores consolidados de otras áreas de la investigación, con experiencia de al menos 15 años. La intención es observar similitudes y diferencias con los del área de estudio.
6	Funcionarios de CONACyT	Subdirectores de evaluación del PNPC, para conocer su posicionamiento con respecto al objeto de estudio.

Fuente: Elaboración propia

Considering the federal doctorate programs in the area of administrative sciences for the field study, two were detected that are in the Consolidated level of the PNAC standard of CONACyT. The first is the Doctorate in Organizational Studies (DEO) of the Autonomous Metropolitan University (UAM) and the second is the Doctorate in Administration Sciences (DCA) of the National Autonomous University of Mexico (UNAM). In addition, the Doctorate in Administrative Sciences (DCA) of the Higher School of Commerce and Administration (ESCA) of the National Polytechnic Institute (IPN), which does not participate in the PNPC, was found.

From the generated categories of the theory, the research instrument was designed. A semi-structured script was considered for in-depth interviews.

In conducting interviews, the same format was applied for coordinators, thesis directors, specialists and experts. Later the instrument was adjusted for the case of the graduates, since it was necessary to contextualize and locate this type of actors more. During the investigation, the need to obtain information from a CONACyT official was observed, so two officials in charge of the evaluation and monitoring of the PNPC were interviewed (in this case the guide was also adjusted).

For the sample, three graduates, two thesis supervisors, one coordinator and one expert for each doctoral program, as well as two specialists from different doctoral programs were considered: a preliminary total of 23 interviewees. However, for various reasons, this relationship was transformed, although it was possible to have another group of actors, namely, CONACyT officials. This allowed for a new positioning and the sample of 23 actors was maintained (see table 3).

**Tabla 3.** Entrevistas de actores clave

Programa de doctorado	Egresados		Director de tesis		Coordinadores		Ex per tos			Esp eci alis tas			Funcionarios CONACyT	Total
	P	R	P	R	P	R	P	R	P	R	P	R		
En Ciencias de la Administración (UNAM)	3	2	2	2	1	0	1	1						5
En Estudios Organizacionales (UAM)	3	1	2	1	1	1	1	0						3
En Ciencias Administrativas (IPN)	3	5	2	2	1	2	1	1						10
Otra institución									2	3	0		2	5
<b>Total</b>		8		5		3		2	3			2		23

P: Programado  
R: Realizado

Fuente: Elaboración propia

The validity involved the observation and appreciation of the reality that seeks to know. Reliability, on the other hand, had stable, safe and congruent results, given that the interviews were piloted with expert investigators (Álvarez, 2003). Likewise, the data obtained among the groups of actors was triangulated and consistency was found, so the relevance of the research instrument was corroborated.

Once the interviews yielded the information, it was approached from the grounded theory, since it identifies the social processes and, when examined iteratively, ensures rigor (Cuñat, 2007). Thanks to this, conceptual categories were generated from the coincidences and differences of the data, which, when sharing characteristics, were grouped to generate codes (Bonilla and López, 2016).

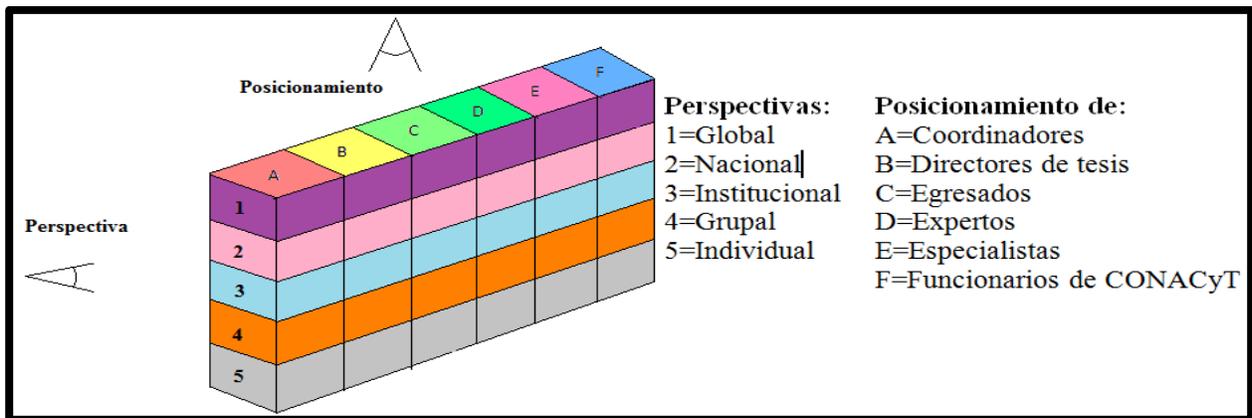
To apply the grounded theory, which was developed by Glaser and Strauss, the symbolic interactions were taken as a basis and the meaning of the words of the actors was determined; words subject, in turn, to the meanings they give to certain objects, to their social interaction and to their experiences (Bluner, 1982). Under this methodology, the theory, concepts, hypotheses and propositions were built. That is, it started directly from the data and not from a priori assumptions (Cuñat, 2007). Similarly, through a process of reasoning and understanding that creates theorizing structures, the theory was conceived through the operation of abstract categories and their interrelation. In addition, this same process develops and corroborates the explanations of the how and why of the phenomena (Rodríguez, Flores y García, 1996).

The computer program Atlas Ti version 7.5.4 was used, whose purpose was to facilitate the qualitative analysis, given that large volumes of data were obtained. In the operation, this program generated a hermeneutic unit from the primary documents (interviews), detecting significant citations to create the coding, the memos and generate the semantic networks. From these networks heuristic thought exercises were carried out and the comparison was continuously integrated; all of which generated an approach, a move from reality to theory and vice versa.

## **Results**

For the analysis of the results obtained from the interviews carried out with the actors, the five perspectives were contemplated: global, national, institutional, group and individual. Subsequently they were studied from each positioning of the groups of actors: coordinators, thesis directors, graduates, experts, specialists and CONACyT officials (see Figure 2), with the purpose of comparing, obtaining differences, similarities and concordances.

**Figura 2.** Cuadro de análisis de la información proporcionada por actores



Fuente: Elaboración propia

The approach to the phenomenon was formalized based on the investigation of the informants' experiences in relation to the object of study and the theoretical sampling. Simultaneously, the comparison and the analysis of the data were carried out in a heuristic way, looking for concepts, contrasting categories, properties and hypotheses. Finally, a hermeneutics of each category and its priorities were made to delimit the theory and saturate the incidents pertinent to each one of them (Rodríguez, Gil y García, 1996).

Based on the findings, it was found that the effects of educational policies on productivity and competitiveness in the training of researchers in federal doctoral programs in administrative sciences in Mexico are diverse. Below are the results under the logic of the analysis model used at the beginning of the investigation and under different sections.

### **Influence or impact of globalization in the creation of educational policies for the training of researchers in doctoral programs in administrative sciences**

The results reveal the existence of neoliberal influences and interests on the part of world hegemonies, transnational corporations and international organizations, with the interest of weakening the control of the Mexican State, as well as its intervention through educational policies to turn towards a scheme based on productivity and competitiveness. These results are related to Lichtensztejn (2012), who states that these entities operate in isolation, although it would appear that they do so in coordination, to weaken governance. In addition, they agree with Luis (1998): they

open markets and implement profit schemes away from the social good and provide help with certain considerations, causing pressure to accept programs, policies and constraints. They also relate to Bourdieu (2000), in the sense that it is a myth that globalization comes from social force; it comes, rather, from the influence of dominant nations.

The positive influences of the policies for the training of researchers are the internationalization of doctoral programs and academic mobility. This is related to what was exposed by Stromquist (2008) when it mentions that there is greater access to new ideas in the exchange of documents, reports, joint projects and epistemic communities, although there is always the risk of homogeneity. Likewise, he agrees with Fresán (2009), who observes that the experience of mobility in academic formation is perceived as very positive.

Regarding the negative influences of the policies, the results indicate that these alter the doctoral programs in their management and in the logic of the process of training researchers, since they modify the spirit of uncovering and truth by an interest based on a scheme of business productivity: more importance is given to efficient and pragmatic practices, which causes a system of unfavorable evaluation for research and the application of external educational models incongruent with Mexican identity. This agrees, on the other hand, with Bergviken (2014), when mentioning that the educational policies of globalization encourage production and results, instead of having a critical and intellectual position oriented towards the needs of the knowledge society. Likewise, it coincides with Ibarra (2003), since this researcher comments that policies prevail under paradigms of privatization, deregulation and competitiveness, with a market-based orientation, all of which distances the university from its commitment to development and equity. Social. Finally, it is related to Chomsky and Dieterich (2004), who found that these policies seek the cultural hegemonization of Third World countries.

## **Effects of current productivity and competitiveness policies on the training of researchers in doctoral programs in administrative sciences**

Educational policies provoke conditioning under the stimulus-response logic: there is an interest in finding the necessary points to obtain economic stimuli.

In this regard, there are several positions. On the one hand, there are those who are in favor of these productivity and competitiveness policies. These people contemplate the implemented evaluation system and believe that it is appropriate, that it is not an obligation but a motivation and they are willing to take measurements and the opinion of third parties. They also think that the demand is an intellectual challenge that avoids the academic parasitism that is cornered in the comfort of easy diatribe and is perversely confused with critical thinking; They consider, finally, that ethical responsibility must be part of the daily task, a reflection that contributes to society.

Those who are against these policies mention that, in the first place, they are misinterpreted when they ignore that the source of change is knowledge and reason, factors contrary to globalization. Second, it is evaluated with quantitative criteria that do not guarantee quality aspects. And thirdly, that business strategies are used under a delivery time scheme that affects the maturity process to achieve transcendental findings. These strategies, they argue, provoke the search for resources based on specific problems, applicable and practical knowledge, modifying the nature and purposes of scientific research, especially academic research, and the training process under relevant theoretical research or of impact, which, in short, suppresses free, genuine, autonomous studies and collaborative work, nullifying creativity and the search for truth. All of the above coincides with Topete et al. (2015), who consider that these educational policies based on productivity and competitiveness distort the nature of the process of training researchers. Likewise, they align themselves with Gregorutti (2010), specifically when he states that "this educational policy has promoted the accreditation of graduate programs through CONACyT, which understands quality as a synonym for knowledge production" (p. 63).

It also reveals that, not having sufficient resources for the development of research and not having well-paid positions for researchers, the application of these business formulas pauperiza IES, academics and students in doctoral programs . Along the same lines, Hamui (cited in Topete, 2012) states that HEIs are increasingly similar and have budgets that do not reach, so it is necessary to access the programs of CONACyT, where resources for research are obtained ; consequently, the

search for economic stimulus is prioritized, researchers are persuaded to carry out research to solve practical problems, the creation of professional programs is stimulated, and human resources are sought for the sectors of the economy, all of which, Without doubt, it weakens the creation of theoretical knowledge and the training of researchers. The above, likewise, agrees with Ortiz, Pérez, Quevedo and Maisterra (2015), who say that there are weaknesses in the policies for the achievement of excellence and quality in research, since the national priority is to promote the economic development of Mexico.

In addition to the above, although collaborative work is the one that allows high levels of research to be achieved, the SNI goes against this logic in the generation of knowledge, since its evaluation design promotes individual work. In this regard, Sánchez (2010) points out the excessive formalization of the evaluation and orientation of the SNI in favor of individual work.

Undoubtedly, these policies are worrying, with inadequate rules, institutional guidelines and organizational structures. López (2008), Ortiz et al. (2015) and Clark (1991) mention that, contrary to this tendency, one should always bear in mind the importance of developing support, protection and perpetual cohesion to contribute to the creation of the intellectual spirit in educational organizations.

All agree on the need to review these policies for research in the area of social sciences, where the administration belongs, since their evaluation criteria are not in accordance with their nature. Kiani and Bux (2010) go further by recommending revising current policies and developing a system of academic tutoring services.

### **Inappropriate practices in the process of training researchers in the doctoral programs of administrative sciences**

In one case it is commented that inappropriate practices are eliminated by means of regulations and regulations, so the academic college eliminates the unipersonal, arbitrary and unjust decisions that may occur. Moreno (2011), on the other hand, alludes to the fact that HEI officials invalidate the importance of the process of training researchers in terms of their disinterest in what actually happens with them, as well as in the practices that are carried out. in the doctorates. In addition, it finds contradictions or omissions in university discourse and in the way in which it intends to consolidate research in HEIs, either at the national level (policies, financing, priorities) or at the local-institutional level (policies, qualification of academics , infrastructure, training programs).

Most believe that these inappropriate practices in research and training have not been avoided. On the one hand, it is attributed to the structural problem of these policies, which respond to interests of power, and to the design in the evaluation strategy, inappropriate for the training of researchers in the administrative sciences, which is a wrong direction that deserves quality of research and academia, as it generates workload, interests of power groups and inbreeding by monopolizing strategic academic elements such as the thesis management, accepting students without investigative skills, carrying out simplistic training processes or not requiring flexible juries, in addition to painful tutoring programs and research stays that are not carried out as they should, even in cases where the thesis work is not read. In accordance with this, García and Ayres (2012) reveal that counseling is not frequent among doctoral students and they have little experience in the search, as well as lack of skill, persistence and alternatives to face the methodological setbacks. Topete (2012), in the same vein, refers that the schemes currently established as a result of productivist policies incite unclear, repetitive academic practices, with few results to social problems.

Another pronouncement that accepts that inappropriate practices have not been avoided is that which mentions that students, lacking a formative maturity in researching and not reading their research papers, are prone to plagiarism, as well as generating corruption with practices of "I put you, you put me", without a real collaboration that starts from the discussion, but from the "cronyism", regardless of whether or not you have an idea of what is being written. This coincides with Ortiz (2010) when he comments that there are cases in which publications are published with one author as responsible and several co-authors and in a later publication the coauthor appears as author, or the same publications with different authors or diversified themes, according to the specialty. These practices students learn, according to this researcher. Another is the refiteo, the repetition of research with some changes with the sole purpose of producing quantity without there being a real contribution. In addition to simulations in the exams of degree, because it does not have a real revision, or by load of academic work or other factors. There is also the lack of freedom in choosing their subjects, given that the lines of research need to be well defined.

Regarding the evaluation criteria for the articles, they are not suitable for the area of social sciences, much less for administrative ones, since they privilege the so-called hard sciences, which causes innumerable problems.

In short, it is observed that two forces are latent: one is the pauperization in research caused by the demands of productivity and the economic need to resort to these programs; the other is an individual and ethical issue, the desire to transform and transcend relevant research, with the motto of generating a change in society, working as a team legally without simulations. To carry this last, it is necessary, from the processes of development of the identity, from the professional ethos, the development of the moral, to walk along the path of virtue; to look back to the interior, to the reason of man, and to carry out ethical practices from its autonomy, from its decision, not from a series of statutes or external demands. So, then, you have to change, do not follow the comparison with the one on the side that makes tranzas, simulates or puts the same work with different titles. Otherwise, if this continues, the true problems of society can not be transcended or resolved. In this regard, Winfield (2013) comments that ethics concerns the daily occurrence of the actors and the moral development of the students by promoting a culture of values inside and outside the educational organization.

It is noted that the way to avoid inappropriate practices is taking care and advising the student with the experience of the tutor to stay on the path of virtue, which begins to move from an individual decision and specifically when you have a vocation. This coincides with Lindén, Ohlin, and Brodin (2011) when they say that mentoring programs are the best strategy that helps to improve the process of training researchers, and the advisor or tutor is key, which requires great commitment.

### **Interaction of the research groups in the process of formation of the doctorate programs of administrative sciences**

The interaction is produced by common interests, when there is a coincidence in the lines of research, in academic events, in collegiate bodies, research progress committees, when directing a thesis, where intentionality is the collaborative work between colleagues and students, including from other campuses, other schools or other disciplines. Therefore, the interaction influences and enriches the training of researchers and the research itself. Hamui (2005) mentions that the interrelation is consolidated from a depuration and insertion of new members, keeping in mind the ethos and the social mode, which are important for the generation of new knowledge.

The personal or group interests are inherent to the organizations, but they make difficult the relations of cooperation and academic communication. In addition, because of the obsession with these interests, it does not matter that undue practices are carried out, which also influences the training of researchers. This describes a lack of professional ethics, combined with the fact that, with the influence of productivity and competitiveness policies, rigor and criticism are diminished. In short, it increases the cronyism or antagonism in reviews and decreases the contribution of research.

It is expected that a doctoral program is a space for academic interaction that, fundamentally, trains researchers in Mexico; and that it contributes to the consolidation of research groups and collective work, forming networks at a national or even international level. Academic mobility and participation in multidisciplinary research projects also create synergies and strengthen the training of researchers. Bearing this in mind, Gaviria, Mejía and Henao (2007) comment that it is important to keep the groups together for the joint construction of knowledge, important and complex actions, so that management and leadership must be kept in mind, as well as the management of affective, cognitive emotions and representations of the world of people.

Work networks are given by sympathy or because they already know each other and it is when they work better, for pleasure, in a natural way, because they identify with each other. However, the ego factor affects the research groups.

On the other hand, in one of the interviews it was stated that networking takes time away, either by traveling to meetings or to reach an agreement; and that after a certain amount of time, interest, encouragement and pretexts for not working continue, factors that hinder research.

In the case of CONACyT, it is considered that the interaction is direct since they are practically the same members of the SNI and the academics in the PNPC who can also be evaluators of the graduate programs, so they leave their mark.

### **Development of autonomy, identity and original academic writing in the doctorate programs of administrative sciences**

It is considered that the process of training researchers comes from previous stages and, among other elements, requires learning to know, learning to do, learning to live together, learning to be and the management of investigative skills. Therefore, the selection and admission of students in the doctorate program becomes important - to select the fittest. This is related to Torres (2006) when he

points out that the process of training a researcher goes through a complexity that involves learning theoretical-methodological and technical knowledge of scientific work, as well as reinforcing values and ethical principles, as well as perfecting skills, skills, attitudes, investigative behaviors and exposure in processes of analysis, reflection, criticism, debate and self-evaluation of all their knowledge and educational know-how.

Thus, under the assumption that reading large amounts of texts causes acquiring knowledge, the student builds his own education. Moreno (2011) says that reading by students has to be abundant and consider the classics to build a broad panorama of knowledge: in this way analyzes the positions of different authors and appropriates ideas and elements inherent in research .

Being the process of a certain individual form, the student gradually takes the direction of the investigation and, with it, forging its autonomy. With the experience and history of the student stamping their identity, as well as with the readings, writing practices and interaction with researchers, the development of skills to perform the original academic writing is promoted; and, in this same journey, with the support of the thesis supervisor and with his experience, the student is led.

It also reveals the lack of a management system, where the authorities follow up on the achievement of the skills and knowledge of the students, because it is left to the freedom of the directors or tutors and, in many cases, the interest is diverts to reach the score required to obtain economic stimuli. Given the above, Kiani and Bux (2010) recommend, as already mentioned, seek the development of a system of institutionalization of tutoring services.

It is stated that the Latino student is used to waiting for the approval of the director, so it is necessary to develop autarchy in their research projects, since there are no guidelines or models in the research, but the process of training the student is creative to build his own project and, with this, to keep in mind that the doctorate is not to fulfill a dream, it is a way of life as a researcher. At this point differs Alfaro (2011), who believes that the task of the trainer is to promote and facilitate access to knowledge.

It should be considered that the research work is prone to be subjugated, to enter into controversy and debate. So it should not be hidden, it is important to know how to defend ideas, know how to justify, since some do not tolerate criticism.

Thus, it is stated that the SNI requires quality in the academic production and in the case of the PNPC it is monitored that, during the training process, adequate support is given to the students and that the consolidated researcher transmits their experience in training of researchers, although it is accepted that it is necessary to improve the programs in some indicators and that it is not reviewed on site.

### **New forms of academic work for the training of researchers in doctoral programs in administrative sciences**

For some time now, we have been working in research networks by specialty and in a multidisciplinary way to allow collaboration, link and encourage debate. To achieve this objective, it is considered necessary to generate research networks in the institution, as well as external and even global. Casas (2014), in agreement with the above, perceives the change of the way of doing science to produce knowledge of work in the same discipline to interdisciplinary and even transdisciplinary work.

Likewise, academic mobility allows the interrelation between researchers from different countries and institutions. García and Hernández (2015) affirm that mobility generates critical reflection on practice, updates and innovates academically the researcher, providing a global and local perspective of their role. In addition, with the use of information and communication technologies (ICT), the work of research is strengthened and expanded.

It should be mentioned that in the case of the SNI, having an assessment strategy that is prone to individual work hinders and inhibits collaborative work, in addition to disturbing the training of researchers. This agrees Ortiz (2010): "[The] effect of these evaluation systems is that they favor the very dynamics of the research acquires an eminently individual character, despite the repeated need for teamwork" (p.101) .

The challenge will be to ensure that the research is carried out in compliance with the ethical and legal requirements, making permanent reflection on the practice to try to recover the creative sense. Therefore, it is necessary to reduce the stigmatized factions of academics who seek power in HEIs rather than academic growth, since in some institutions of this type they continue with inbreeding and the link with other institutions is limited.

Finally, it is stated that in the case of the PNPC, evaluation is a collaborative way through three academics in the lines of generation of knowledge application, which contributes to the training of researchers and collaborative work, where knowledge is multidisciplinary in nature. the resolution of problems. Not so in the case of the SNI, since its evaluation is individually.

### **Consolidation of doctoral programs in administrative sciences for the training of researchers**

The actors coincide to a great extent that in order to consolidate a doctorate program, they must participate in the CONACyT PNPC, given that it is the only existing system that follows up so that the required elements are met, and thus have resources for research. However, there are elements that must be corrected, such as ceasing to restrict research with absolutist positions, obsessed with schools, authors or disciplines, because, when prioritizing the development of science and technology in the area of hard science, it is neglected the training of researchers. This is related to the research of Basulto and Grediana (2011), in which it is concluded that it is important to achieve better indicators in the designs to evaluate the quality, as well as in the process of monitoring and evaluating the performance of the programs and not only the characteristics of the basic nuclei or the terminal efficiency to qualify the quality of the results.

The social sciences have another logic. In these it is important to open up to grounded critical thinking, methodical doubt, so it must be recognized that it is necessary to review epistemologically and philosophically the indicators of evaluation of the social area, because, for the study of human beings, the complexity and not a variable and controllable series as in other sciences, leading to strategies with emphasis on qualitative research methods. These findings are related to Alvarado et al. (2013) when they point out that the specific nature of each discipline must be taken into account, since the accumulation of points is a quantitative recount in production and does not reflect the quality of a qualitative analysis. It also agrees with Gregorutti (2010), who considers the need to rethink the parameters and presuppositions to define quality in the production of knowledge.

In the findings detected for the training of researchers in doctorates in administrative sciences, it is observed that it is necessary to develop theoretical, methodological and technical elements to analyze social and organizational research. Also, have elements such as caring for the admission of students and full-time students; have academics really committed, motivated, responsible and adequate; possess more serious curricular designs and without adjustments for other interests; really

value doctors as researchers and scientists and provide them with a position worthy of their level; that there is agreement between the interest of the student's research work and the assigned research line; promote the programs of exchanges of stays and agreements of connection; achieve generate assertive interrelations between the thesis director, the groups of researchers and the student; formally manage collaborative networks; develop a management system for monitoring tutorials and for the training process to care for and encourage students in their academic journey; develop competencies in software management for quantitative and qualitative analysis; promote seminars in English; submit research advances and stimulate debate, criticism and discussion in different forums in order to mature research for publication, and motivate academic mobility internationally.

Regarding the management of doctoral programs, it is considered important to evaluate the performance of the researcher trainer, as they refer cases where the student works alone and faces the development of his research work with only his self-criticism, self-reflection, self-learning and Self-knowledge, which leaves much to be desired from the mentoring system. Kiani and Bux (2010) report that almost all tutors do not have time to supervise the investigation.

This leads to the need to verify the thesis review support tasks through the tutorial committees in each semester; guarantee at the synod of external researchers in the degree examination; Verify that the degree exams are not combined with the tutorial committees; balance the researcher's workload to develop and publish research; stimulate research projects in a collaborative way; standardize the evaluation programs of researchers; renew the designs of the programs and strategies; modify the basic nuclei of researchers; maintain balance in different areas of knowledge so that no bias is found, and try to balance quantitative and qualitative research.

The intention is to look for strategies to avoid practices such as giving preferences and making things difficult for students; do not read the theses; the lack of commitment, and the bad interrelations between the thesis director and the student.

In addition, it is detected that one of the main needs is the contribution of more resources to graduate programs and to research by the State. Likewise, free resources that exist in the administrative bureaucracy, because the situation is very poor and when resources are allocated it is usually too late. And finally, freeing IES from endogamy, which does not allow progress to transcend.

On the other hand, review the relevance of the terminal efficiency in the evaluation of the programs, since it causes graduation without contemplating that the student achieves the degree of maturity as a researcher, since he graduates to meet the points that provide economic stimuli. And verify, also, the relevance of professional programs, because the boom for the search to improve work or to address practical problems of the third sector alters the doctoral programs, whose real mission is the training of researchers.

With regard to publications in the area of social sciences, it is appropriate to prioritize interest in Latin American journals, because the American or Anglo-Saxon indexed journals have another context and their conditions differ, which does not happen in other sciences. This coincides with Borrego and Urbano (2006), who point out that the evaluation process of scientific journals in the social sciences presents difficulties because of the bibliometric indicators derived from this type of analysis. In this sense, we also focus on the translation of English books under the Anglo-Saxon context in each chapter, since we must write the response of a researcher from Latin America, a factor of great importance for the points of view.

It expresses the need to have more studies on the training of researchers, with perspectives of interdisciplinary research, and consolidate a line of research with studies on public HEIs and multidisciplinary groups that consider power, public policies, construction processes of knowledge, training strategies and the epistemological perspectives of the social sciences, where administrative and educational matters are of primary consideration.

## **Conclusions**

The construction of the model for the analysis of the existing interrelations in the training of researchers made it possible to present a broad panorama with a theoretical basis where this analysis was developed separately by dividing the study into five perspectives: global, national, institutional, group and individual (the training process). So, later, to study the interrelationships from the experiences of the actors.

When evaluating the effects of these educational policies on productivity and competitiveness, influenced by global hegemonies, international organizations and transnational corporations, with neoliberal ideals, it is revealed that these modify educational organizations with the use of business strategies and evaluation schemes for economic stimuli. of CONACyT programs, which causes an

alteration in research with perverse effects and inadequate practices (Fresán, 2013, Sánchez, 2012, Ibarra, 2006, Topete et al., 2015). As a consequence, it is essential to call for a revision of these policies in the field of social sciences. Not only for the fact that it is an area that shares ideas, but also for decoupling conceptions and imaginaries in the treatment and conservation of what is imposed by government agencies.

The assertive interrelation of research groups positively influences and enriches the training of researchers, although they can present personal or group interests that are inherent in any organization, so the ethos and the social mode must be improved (Hamui, 2005).

The training process must be under the constant review of the thesis supervisor, although, in a certain way, it must be individual, that is, with the responsibility of the doctorate to take the direction of the research. The intention is to forge their autonomy and create an identity of the student. In addition, the iteration of readings, writings and interrelation with other researchers promotes the ability to generate original academic writing.

The trend in the forms of work is through research networks and collaborative work, whether interdisciplinary or transdisciplinary, and potentiated with ICT. It also reveals that the SNI evaluation design, by stimulating individual work, hinders collaborative work.

It is considered that, in order to consolidate a doctoral program, it must be incorporated into the CONACyT PNPC, since it is the only follow-up system that exists to support research. However, as already mentioned, these programs must be reviewed and modified, in addition to fostering an institutional management system that leads to the improvement of the process of training of researchers in doctorates in administrative sciences.

The research allows us to observe the interrelation of the five perspectives of analysis, from external influences and the creation of policies to their effects in educational institutions, in research groups and in the training process. This helps to delimit the existing elements in the investigation and avoid confusion.

For further studies it is recommended to deepen the research in each of the five perspectives, as well as to replicate this study in other doctoral programs in other areas.

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