

## La formación de investigadores-profesores en la calidad de la educación superior en México.

*The training of researchers-professors in the quality of higher education in Mexico*

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### Resumen

Resulta importante abordar el impacto de la formación de investigadores-profesores en la calidad de la educación superior en México, debido a que actualmente parece estar en *crisis* –cabría preguntarse si ¿en algún momento no ha estado en crisis la formación de investigadores-profesores? Es probable que el estado natural de la calidad educativa sea el de un constante desequilibrio debido a que la calidad en educación debe responder al desarrollo integral formativo, a la sociedad y al mercado laboral, entre otros; y al hecho de estar inmersos en una realidad tan cambiante que nos enfrentamos a constantes retos, necesidades y exigencias, es decir, económicas, políticas y sociales; así como en sus diversas versiones tanto internacionales, nacionales, estatales, locales. Todo ello ha traído como consecuencia una desalineación, la cual pudiera explicarse por la pérdida de los objetivos centrales propios de la *Universidad* y de su modelo educativo.

**Palabras clave:** Formación, Investigadores, Calidad Educativa, Universidad, Docencia, Competitividad Educativa, Modelo Educativo.

## Abstract

It is important to address the impact of the training of research-quality teachers in higher education in Mexico, because at present seems to be in crisis, one might wonder whether did you ever not been in crisis training researchers-teachers? It is likely that the natural state of educational quality is that of a constant imbalance because the quality of education must respond to the comprehensive development training, society and the labor market, among others, and the fact of being immersed in a reality changing as we face constant challenges, needs and requirements, ie, economic, political and social, as well as in its various versions both international, national, state, local. All this has led to a misalignment, which could be explained by the loss of the central objectives specific to the University and its educational model.

**Key words:** Training, Researchers, Quality Education, University, Education, Educational Competitiveness, Educational Model.

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## Introduction

One of the problems that currently prevails in public and private universities is the mismatch between education and employment programs and social demands, this may be because teachers are not updated in the theory and practice of their training, bringing in serious problems including poor reading and research to do so involved in the various strands of theoretical and epistemological thinking that leads him to suggestions for improvement and solving real problems (specific cases) or that contribute to the generation of knowledge.

Importantly, the teacher is also hindered in their educational practice by endogenous and exogenous factors, with the majority of the time with very large groups, the lack of pedagogical preparation that allows you to target the integral formation of the students and

if add to this the excessive hours-board. Hence we get the following questions should be directed where does the training of researchers-teachers in higher education? and what role does research for teacher preparation?

These questions lead us to the following hypothesis to form an educational researcher in a public or private university is necessary that the teacher be reflective, analytical, critical and proactive in their environment; It is therefore essential to move from a classic reductionist thinking of reality to open hologramatic, creative and complex thinking humanist. This requires starting to unlearn to learn.

### **Training of researchers-teachers**

A study by the Council for Higher Education Accreditation (COPAES: 2003) notes that the higher education system has several problems that affect the quality of education in Mexico. The National Education Program 2001-2006 prepared by the Ministry of Education, presents a diagnosis of the problem of each level and is at the same time, the guide that guides the work to overcome obstacles. As regards higher education these are the problems identified: Stiffness in educational programs: Weaknesses of academic paintings, only part of the faculty of the higher level works full time, and of them, 11% produces knowledge, which indicator is the publication of research articles in international magazines (SEP: 2006), insufficient production of scientific knowledge production even when the country has tripled in the last decade, the contribution to the global total year is less than 1% , which is lower than expected for an economy the size of Mexico. "In public institutions of higher education most of the scientific and humanistic research in the country is done. However, the institutional capacity for research is very heterogeneously distributed in the country and their weakness in many of the agencies and institutions that affect their mission should cultivate the quality of educational programs. "

The XXI century university should offer training programs with curricula characterized by flexibility in its design and implementation; academic rigor in curriculum work, from design to the comprehensive evaluation of the curriculum; multidisciplinary approaches and effective implementation; cultural and multicultural integration in orientation.

Some English universities value the suitability of university teachers (teachers must be accredited in order to acquire the status of permanent faculty at some universities) based on five skills: organization, presentation, relationships, mentoring-support students, evaluation. And if you want to acquire the status of excellent teachers, the number of skills and the level of demand rises. Candidates must demonstrate excellence in teaching possession of the following competencies: 5 mentioned above but on a higher level of proficiency; reflection, innovation, curriculum development capacity; organization of courses, educational research, and finally leadership group.

In this regard, it is important to note that the work of Perrenoud (2004) and 10 skills teacher (do not refer to a university professor). Another proposal is to Cano (2005). What should not be lost sight of is the sense of teaching as a vocation and personal commitment, since they are fundamental in forming the teaching process, because teaching is a complex task that requires knowledge of technology to enrich and an clear ethical vision of teaching work. In this sense we speak today of the training of trainers.

### **Educational Quality**

In this work, we understand that the quality of an education system, in this case above, is the result of a historical process in which factors have combined both endogenous and exogenous to the institutions, which have affected the development of the academic functions. The quality does not only improved the efficiency or effectiveness in achieving the desired products, but also the qualitative definition of those same desires, expressed as objectives or purposes of education, consistent with the needs or national projects (ANUIES: 1987).

The Council for Accreditation of Educational Programs in Humanities AC (2007) definition of quality of higher education congruent combination of both aspiration of promoting values and possibilities of the human being (autonomy, criticism, freedom, creativity, self-learning ability choice, fairness, sense of justice, altruism, aesthetic sensitivity, ability to think and make sense of the human making, ability to recognize, respect and promotion of otherness and open dialogue through reasons), and the assurance of academic processes to ensure appropriate levels of terminal efficiency, student retention, development of original research, academic, curricular renovation, social interaction and

cultural diffusion. This accreditation body aims to develop strategies in order to ascertain how the area HEIs implement this concept in performance quality or important aspects. Accreditation, institutional and individual connotation involves a search for social recognition and prestige by both individuals transiting educational institutions, for the same. In this sense the accreditation processes have become a necessary requirement today, under that guarantee the quality and credibility of an educational process and its results (Pallan, 1995). Hence the accreditation has a strategic role in the drive towards significant changes in the organization and efficiency of the higher education system (Pallan, 1995) education policy.

Therefore, this research does not seek to define the quality of education at a higher level, but rather to contextualize and find the essential elements that identify, evaluate and assess. Right Fernández to understand that even though the term has been discussed repeatedly do already have a lack of definition of it. This situation is understandable due to the complexity of it, often linked in a multitude of purposes, now will not discuss, which are not always aimed at improving the educational process. As posed or group definitions of educational quality in four major trends:

1. that focus on results (the product) Identify educational quality in a functional, valid, competitive and efficient product.
2. that focus on the process. The definition of Esteban Montiel and clarifies: "Process or principle of action which aims not only to obtain immediate results or final, but mainly a way to go by, slowly, things to achieve the best possible outcomes in order to what we demand and the real possibilities and limitations you have "
3. eclectic positions (consistency), seen as a quality inherent in the process and the product. (Integrity, consistency and effectiveness).
- 4 The business vision of education. Providing customers (parents, children, guardians, AMPAS, etc.) products and services that fully meet the agreed requirements.

From all this we deduce that the conception of the term quality of education is closely related to the idea of education you have. A person of liberal, moderate, progressive or Marxist trend will have a different conception of the term quality. Therefore, the definition depends on the subject evaluated, objects or processes compared, the ideology to which it responds to the expectations of the social, economic vision in which it is conceived, institution or company that intends, etc., it is also important to note that the quantitative and qualitative paradigm in this process has been and remains the center of the discussion, but the definition will have to be placed under any of the above trends (Right Fernandez 2003). However, these trends have had to adjust to the reforms and modernization of regional and national Ministries and New Educational Models of Universities educational systems of the Ministries have rethought this logic following the guidelines of UNESCO, BM , IMF, OECD, with its Document DeSeCo (Definition and selection of Competencies), etc., specifically with the EHEA (European Higher Education) and his project 'Bologna Process, the Glasgow Declaration (European Universities) , Bergen, London, the CERI (Centre for educational research and innovation), the A. projects for Europe and America: with Socrates-Erasmus-Leonardo da Vinci, Tuning, 6x4 (EU-Caribbean), Alfa-European projects (Alpha and III E / AL with his Innova-Cesal)

Behind all these projects for educational modernization require changes not only in the Educational Models of Universities in Mexico, that is, something more is required than good intentions grounded in the pedagogical theories of education, but rather is evident divorce own ideas and traditional education practices. This has been integrating the so-called learning industry competency'.

Given the above and taking into account the need to identify the elements to somehow weigh the quality of higher education in Mexico, it was considered important to check the results of the Index of Transparency and Access to Information of Public Universities (ITAIUP 2008), whose measurement encompasses 39 public universities in the country, which can be noted that educational services where Mexico has shown significant weaknesses, as shown by various studies that indicate low educational coverage at a higher level because of 10 thousand inhabitants, only have access to public higher education 225, ranking 15th place in Latin America, behind Argentina, Panama, Costa Rica, Venezuela,

Chile, Bolivia, Dominican Republic, Peru, Granada, Uruguay, Barbados , Antigua and Bermuda, Cuba and Colombia, this despite being the nation that exerted more public spending per student in Latin America.

Importantly, if we compare the expenditure per student in higher education between Mexico and some countries in the region, we note that there is a significant difference in the amount allocated, because while Mexico spent \$ 4.289 per pupil, Chile and Argentina have spent little of \$ 3,500 per student in the same year (OECD 2006) and six years later 47 percent increase, ie, annual spending per student was \$ 8.020 in Mexico (OECD 2012). This suggests a lack of administrative capacity and distribution of economic resources to generate adequate educational facilities both in infrastructure and in the Mexican educational quality. Mexico intended the second highest proportion of this expenditure to education, 20.3 percent, after New Zealand, while the countries of the organization invest 13 percent, but Mexico can match the average expenditure in proportion to GDP countries of the organization. Education spending in Mexico is 6.3 percent of GDP, which places the country above average than budgeted the rest of the nations in the sector.

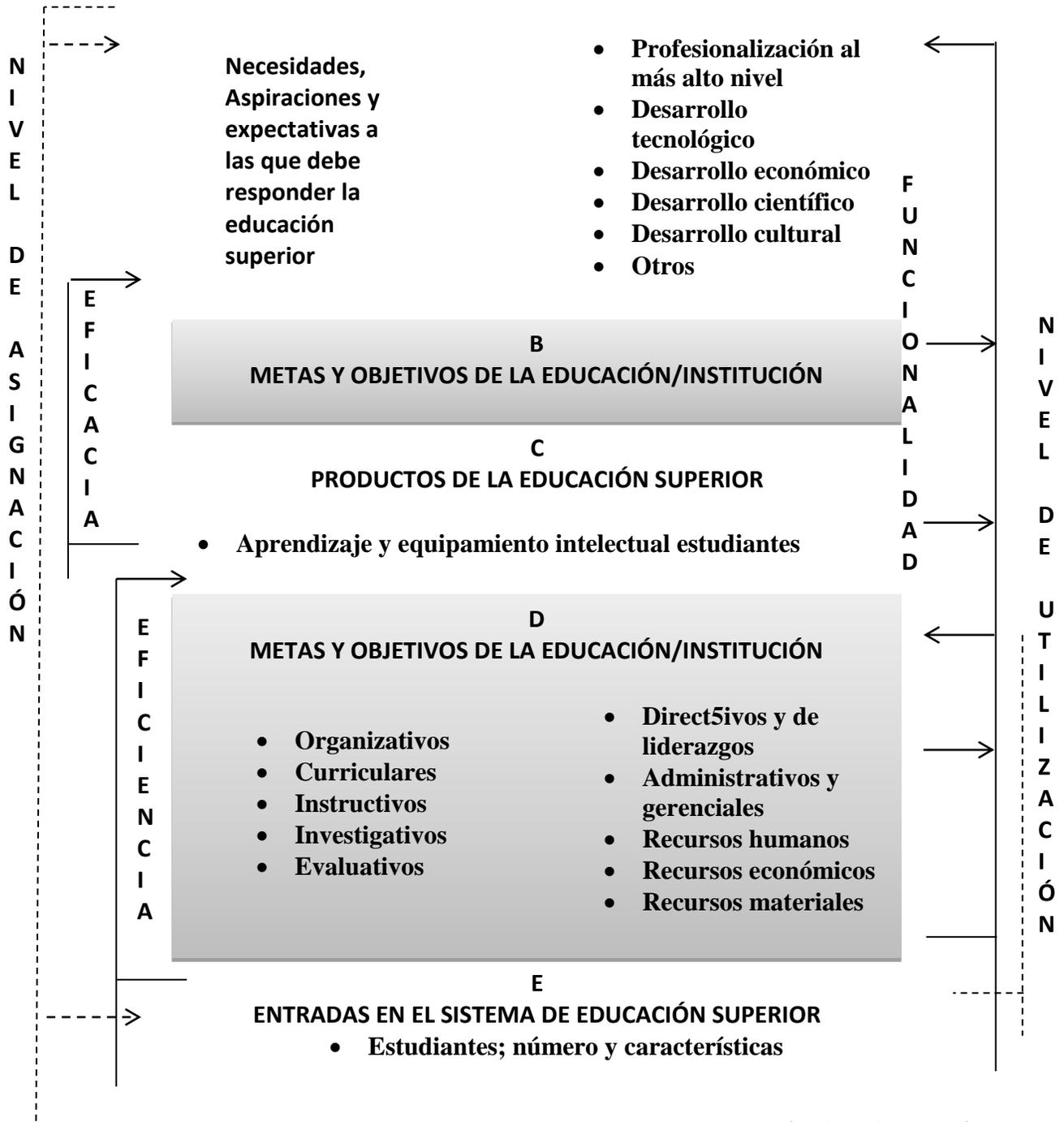
In the past nine years the number of private universities grew at rates between 4.5 to 5%, from about 600 thousand institutions, in which more than 21 thousand 100 undergraduate and postgraduate taught, but almost half of them do not there is an assessment that guarantees the quality of service that is provided there. The Secretariat of Public Education (SEP: 2009) states that these universities, only 538 are recognized for their good quality.

The records have the SEP, 1991 to 2009, said that while the number of young people who join public universities doubled; in the case of private universities, the number of students quadrupled in the same period. Going from just under 250,000 to nearly a million students. The SEP in turn indicates that no historical lag because only may attend college at 28 in a hundred young people in Mexico.

It can be considered that the University is hardly effective and functional if only some of the objectives achieved high social significance and fails others because of poor distribution and use of teaching resources and research. Quality, in this perspective, it appears as a continuous scalar, whose points represent combinations of functionality, effectiveness and efficiency, mutually involved. Its maximum degree, excellence, represents an optimal level of coherence between all major components shown in the systemic model.

**CUADRO 1. MODELO DE CALIDAD UNIVERSITARIA**

**CONTEXTO SOCIOCULTURAL Y ECONOMICO DE LA EDUCACIÓN SUPERIOR**



(De la orden, 1997)

In some cases, this relationship of consistency or inconsistency will be apparent, given the close structural and / or functional between the related components. Such is the case, for example, the postulated relationship between "Goals and objectives of university education" (B) and the "social needs" (A); or between "products of university education" (C) and "Goals and Objectives" (B). In these cases, the relationship appears as direct and immediate. In other cases, the ratio would be less evident, as, for example, the assumed between "Management Processes" (D) and "Social needs" (A). Here it is indirect and mediate relations. But any break in the network coherence between components would be more or less severe limitation of educational quality. (Order 1997). According to this theory, the system's objective is to train professionals to meet the needs and economic and social expectations, while the quality of university education is identified with an explanatory construct complex valuations, supported by the joint consideration of three interrelated dimensions: functionality, effectiveness and efficiency, expression, in turn, an integrated coherence relations between the basic components of education or a university system conceived as a whole. First, the coherence between, on the one hand, inputs, processes, outputs and targets, and other social needs and expectations define the quality of university education as functionality. Second, the consistency of the product with the goals and objectives defined by the quality of university education as efficiency or effectiveness.

Third, the coherence between, on one hand, input and processes and on the other, product, defines the quality of university education as efficiency. Within the model, no sense to speak of efficiency, lack of efficacy, and it is doubtful considered as effective a university that achieves a very relevant objectives for students and for society, ie, with a low level of functionality. Moreover, a university will be considered poorly effective and functional if only some of the objectives achieved high social significance and fails others because of poor distribution and use of teaching resources and research. Quality, in this perspective, it appears as a continuous scalar, whose points represent combinations of functionality, effectiveness and efficiency, mutually involved. Its maximum degree, excellence, represents an optimal level of coherence between all major components shown in the systemic model. (Order 1997).

**Model Heuristic teaching - learning Entwistle (1987):** This model emphasizes the relationship of three components into the teaching activity:

**Systemic Approach:** Systems theory suggests that organizations are open systems, which in turn are subsystems of the society in which they are embedded. Organizations and society are related by the objectives that constitute its social function.

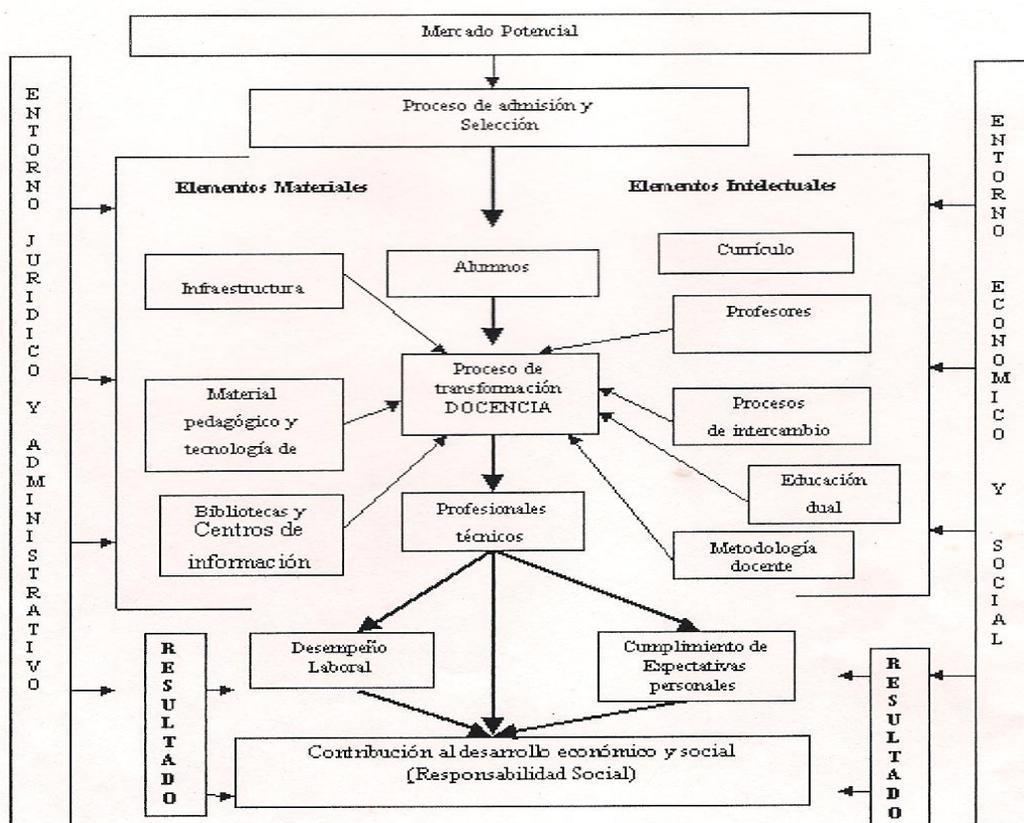
In this context that the accreditation as a process by which a program or educational institution provides information about its operations and achievements to an external body that evaluates and judges, independently, that information to make a public statement about the value or quality of the program or institution.

### **Conclusion**

As already said before, being a teacher researcher in a public or private university competencies for reflection, analysis, criticism and development proposals consistent with the demands of the environment. This requires unlearning start to learn therefore the quality of teaching transcends the performance of teachers. Her ability to intervene individually institutionally and socially limited. The teaching performance involves constant decision making.

For its part, UNESCO notes that the quality, relevance and internationalization should be understood multidimensionally -quality faculty, academic programs, the student-; relevance how the university meets the economic, social and cultural needs of its environment; and internationalization both understood what the universal nature of knowledge and the current process of economic integration. The evaluation and accreditation mechanisms are understood as strategies to address these challenges.

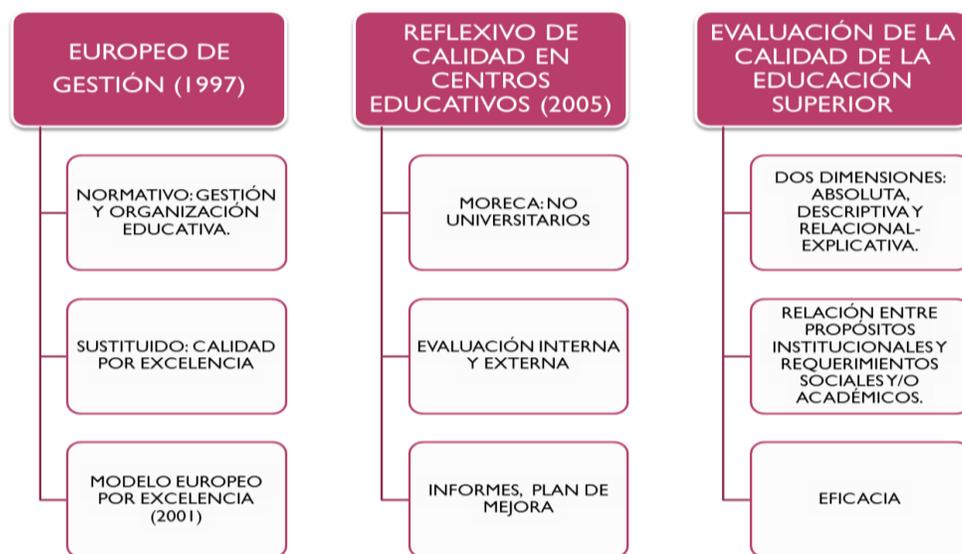
TABLE 2 MODEL OF TEACHING IN HIGHER EDUCATION



The proposed analysis of this research is that the quality of higher education in Mexico requires an efficient and effective integrated development that achieves a holistic view using the following headings:

- 1) Model of educational quality (prestige, resources, results, levels, curriculum transformation).

TABLE 3 QUALITY MODELS



(Elaboración propia con información de Cong: 2008)



(Elaboración propia con información de Cong:2008)

2) Educational model (specific to each institution).

3) Assessment Model (American, European, British) quality.

- 4) Competitiveness, skills and discipline integration dimensions (eg the Global Competitiveness Index (GCI) (World Economic Forum).

TABLE 5. QUALITY OF HIGHER EDUCATION IN MEXICO



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