



# Innovaciones

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# INTERNATIONALIZATION OF HIGHER EDUCATION: INSTITUTIONAL LEARNING IN BAJA CALIFORNIA

Patricia Moctezuma Hernández\*  
y Alma Beatriz Navarro Cerda\*\*

**Translator: Pablo Contreras Fresán**  
E-mail: [deepcolearning@gmail.com](mailto:deepcolearning@gmail.com)

\* Professor, Faculty of Economics and International  
Affairs, UABC. Researcher SNI Level I  
Email: [moctezuma@uabc.mx](mailto:moctezuma@uabc.mx)

\*\* Professor, Faculty of Economics and International  
Affairs, UABC.  
Email: [beatriznavarro@uabc.edu.mx](mailto:beatriznavarro@uabc.edu.mx)

REVISTA DE LA EDUCACIÓN SUPERIOR  
ISSN: 0185-2760

Vol. XL (3), No. 159

Julio - Septiembre de 2011, pp. 47 - 66

Approach: 14/01/09 • Acceptance: 23/02/11

## Resumen

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**E**ste trabajo analiza el proceso de internacionalización de la educación superior expresado a través de reformas e innovación en las estructuras que las instituciones de educación superior (IES) de Baja California han realizado con el objetivo de responder a los retos actuales. Para ello se hace una reflexión teórica y análisis de las aportaciones realizadas en materia de internacionalización de la educación superior. Finalmente, usando el enfoque de análisis de redes y la tipología de Rhodes y Marsh (1992) se evalúa la internacionalización de las IES más representativas de Baja California en un contexto transfronterizo.

Palabras clave:

- Educación superior
- Redes transfronterizas
- Internacionalización

## Abstract

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**T**his paper examines the internationalization of higher education expressed through the reform and innovation in the structures that Baja California's higher education institutions (HEIS) have made in order to respond to current challenges. This is done through a theoretical reflection and analysis of the contributions made on the internationalization of higher education. Then, using Rhodes and Marsh (1992) network analysis and typology approach, the internationalization of Baja California's most representative HEIS is evaluated in a cross-border context.

Key words:

- Higher education
- Cross-border networks
- Internationalization

## Introduction

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This paper examines the internationalization of higher education in the context of global processes and the analytical perspective of policy networks.

Network analysis assumes the existence of several elements throughout the period of continuity and change in public policy (Chaques, 2004). In the case of higher education it is recognized that the implementation of some models to interpret the degree of internationalization of higher education institutions (HEIs) allows us to understand the different processes of institutional adaptation of universities to external challenges which are in turn considered as the above mentioned elements.

In Baja California, the higher education system stems from Mexico's centralized federal model, which is characterized by defining the educational policy for the country.

Different features of policy development can be seen in different government administrations. Since Vicente Fox Quesada's presidential term government innovation was promoted, giving continuity to various modernizing aspects that began during Carlos Salinas de Gortari's term. Consequently, through the evaluation systems and by furthering the planning model of the Integral Program for Institutional Strengthening (PIFI, acronym in Spanish) from Ernesto Zedillo Ponce de León's administration, the organizational development, management and innovation reform model for some autonomous public HEIs was made possible. Quality, relevance and equity were expressed more clearly in the first generation of policies. In the second stage of maturation of the institutional model for innovation, the criteria and values of internationalization and transparency in a globalized knowledge society were what guided the change in institutional strategies.

HEIs as public entities under different institutional regimes, whether autonomous, centralized or state, as well as those belonging to the private sector, with international, regional or local reach, are subject to rules, controls and incentives promoted by the federal executive branch and require the implementation and adoption of laws on transparency and accountability as part of the controls that society demands in an increasingly consolidated democratic regime (O'Neill, 1995 and Moctezuma, 2008). In Mexico, these new spectra of transparency and internationalization of higher education federal policies are the result of an emphasis on outcomes assessment in the model of governance.

From a public policy approach, the actors involved in the design analyzed the internationalization of higher education from various perspectives, transnational, regional and cross-border but also considered the HEIs as part of complex institutional, organizational and social networks oriented toward knowledge generation and social values, while also legitimizing the democratic regime. In the transnational context there is intense international relations activity at the Universidad Autónoma de Baja California (UABC) with

other foreign HEIs, both in terms of student and academic mobility, as well as signing agreements for strengthening its educational programs, that even trickle down into the private education sector. In the regional border context of Baja California and California, a space of convergence to promote activities and achieve common academic goals has been created.

Although there are marked asymmetries in this border region, public and private HEIs have incorporated various features of federal policies, particularly public HEIs, which recognize quality and relevance as the main focus of their actions (Moctezuma, 2008). In 2000, under a new government administration, SEP's Sub-secretariat of Higher Education implemented new public management innovation strategies that consisted in the development of State Systems of Higher Education (SEES, acronym in Spanish). Through the implementation of incentive programs, the participation of the Federation led to a greater achievement of higher levels of relevance in education in terms of local and regional development and internationalization as a means to renew and benchmark levels previously achieved (Lavanchy, 2006).

## Prospects for the internationalization of higher education

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From the perspective of globalization, HEIs are subject to pressures and tensions (Brody, 2007), displaying different abilities to adapt and adjust to them. Therefore it is argued that universities have undergone profound unprecedented changes from a historical perspective (Ordorika, 2006).

In the framework of globalization, the internationalization of higher education is understood as a means and not an end, hence actions such as curricula, joint research projects, curriculum for the learning process, agreements of cooperation and collaboration as well as student and academic mobility, are concrete expressions of this process (UNESCO, 2004). Although internationalization has many meanings, perhaps the most appropriate is the ability of countries and institutions to respond to the challenges and phenomena of globalization (Knight, 2005).

In this sense, the idea of internationalization becomes concise action subject to being characterized and quantified within HEIs. According to Fernandez and Ruzo (2004) this phenomenon has economic effects and a financial impact on all stakeholders: teachers, students, educational institutions, country governments, society and international funding agencies. Hence, these activities may differ in political, administrative and cultural terms. In the political arena the will of stakeholders to sign general and specific agreements with foreign institutions, such as agreements of cooperation and collaboration of academic and scientific institutions are highlighted. This alone, expresses a set of policies that result in agreements such as the Mexico-US agreement on educational and cultural exchanges (COMEXUS), signed on November 27<sup>th</sup> 1990, by both governments.

From the administrative perspective it is embodied as a series of specific actions stemming from these agreements through which HEIS come to modify their organizational structures until they create an office or department in charge of internationalization activities. In terms of actions, HEIS create controls for inputs and outputs of international human resources, reception of students and academics from foreign HEIS and the academic mobility of their own students and scholars to foreign HEIS, with which they generally have established a cooperation or collaboration agreement to conduct these activities.

Such agreements promote the formation of academic networks, hence the internationalization expressions in higher education institutions may be classified into three sections: the first, in the academic and student mobility motivated by individual concerns and desires of learning about other ways of seeing the world and acquiring knowledge, limited only by the mastery of different languages. The second, by signing agreements for collaboration and cooperation for the implementation and achievement of specific goals; and the third, by establishing specific policies aimed at the internationalization of higher education by HEIS, which includes a variety of actions ranging from programs in two countries at the same time and sometimes double diplomas, as well as phenomena of cross-border education, where geographical conditions allow a closer relationship with HEIS in neighboring countries.

## **Analysis of schemes for the internationalization of higher education**

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**U**niversities operate in different contexts in relation to their ability to assimilate global processes. Thus the various contributions of internationalization contain elements related to social and quality aspects.

From Warner's (1992) perspective there are several reasons and imperatives that encourage universities to orient their agendas toward internationalization mostly associated with international competitiveness, self-development models of trade liberalization at the borders and social transformation under the current democratic system. Knight (1994) understands internationalization as a continuous and cyclical process, which encourages HEIS awareness of the commitments made to society through an evaluation process. Davis (1995) identifies both external and internal factors, the organizational model he proposes suggests establishing priorities such as the planning, financing and evaluation of international activities, departing from organizational axes that are both ad hoc and systemic. Rudzki (1998) presents a model for the internationalization of higher education considering strategic planning as a basic element. Van der Wende (2002) proposes an approach that includes goals, policies, strategies, activities and effects on the institutions through a framework that emphasizes the correlation between national and institutional policy, to define policies that favor the implementation of strategies for student and academic mobility in HEIS (Table 1).



**Table 1**  
**Characterization of the models for the internationalization of HEIS**

Warner (1992)	Knight (1994)	Davis (1994)	Rudzki (1998)	Van der Wende (2002)
<p><b>Model 1.- International Competitiveness:</b>            Elements and specific features in the curriculum to improve students' position in the labor market.</p> <p><b>Model 2.-Internationalization as a self-development model:</b> Contributes to the phenomena of globalization as a process of trade liberalization at the borders.</p> <p><b>Model 3.- Social Transformation:</b>            Knowledge acquired by students contributes to the process of social transformation in their regions.</p>	<p><b>Model consisting of six stages:</b></p> <p>a) Stakeholders awareness;</p> <p>b) Stage of institutional commitment;</p> <p>c) Activity planning stage;</p> <p>d) Operational stage is prepared and ready;</p> <p>e) Stage for evaluating the administrative processes; and</p> <p>f) Stage for strengthening the process.</p>	<p><b>Model consisting of two axes:</b></p> <p><b>Axis 1.-</b> heis react erratically and irregularly in their activities and programs.</p> <p><b>Axis 2.-</b> heis have and apply accurate and specifically designed procedures for internationalization activities.</p>	<p>Strategic planning model consisting of four activities:</p> <p><b>Activity 1.-</b>            Organizational change;</p> <p><b>Activity 2.-</b> Curriculum innovation;</p> <p><b>Activity 3.-</b>            Human resources development, and</p> <p><b>Activity 4.-</b>            Student mobility.</p>	<p><b>Short and long-term effects are considered.</b></p> <p>Short-term benefits reach students, faculty and teaching practices, while long-term benefits are cumulative for heis, for increasing the quality of education, to raise graduates' profile and improve institutional positioning.</p>

On the other hand, it is understood that signing the North American Free Trade Agreement (NAFTA) in 1994, between Mexico, the United States and Canada, created a need to modernize administration and governance systems in Mexico. It was then observed that higher education internationalization activities were being developed outside the institutional development plans (IDPs) in public HEIS (Rubio, 2006), as a result of individuals or groups needs to develop relationships abroad. Consequently, Mexico's actions have been directed toward the implementation of public policies to improve quality, ensure equity and coverage, addressing the relevance and diversification of educational programs, where processes of decentralization are the clear results of modernization (ANUIES, 2002, Moctezuma, 2003). The elements of differentiation between HEIS, either by the regime to which they belong or the kind of knowledge application they perform, determine the degree of internationalization they may achieve. In this regard, northern Mexico border HEIS, in addition to their adopted international traits, are in a position to take advantage of their natural geographical location, to stimulate the creation of expressions of cross-border cooperation between Mexico and the United States.

One of Albacht and Knight's (2006) concerns, associated with the porosity of border trade, is that the internationalization of higher education should be associated with trade liberalization in the world by the means of cross-border supply of educational services, the commercial presence of the provider in another country and the mobility of people at the transnational level. Raising the issue of why an institution should internationalize and what are the benefits? Some reflections are directed towards increasing the quality of education and, consequently, increasing the relevance of the service and the processes involved, such as teaching, research, extension and linkages (Jaramillo, 2004). Hence, the analysis of academic cross-border networks formed promote the establishment of joint programs in higher education.

## **Criteria and programs for the implementation of the internationalization of higher education**

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**M**exico has promoted programs for the internationalization of higher education such as the Alban Programme, which aims to provide scholarships for Latin-American high-level students to study graduate programs in the European Union and thus contribute to the education and development of global citizens (Alban, 2007). The European Union also has the Erasmus Mundus program, which runs through the promotion of masters programs that provide scholarships to students with the aim of preparing European citizens for a global life (Erasmus, 2007). One of its strengths is that it allows student mobility to third countries, thereby increasing cultural knowledge and interpersonal relationships (Romero, 2006).

The Fulbright scholarship program contributes to improved cross-border practices and internationalization between Mexico and the United States. Fulbright was developed in the context of relations between both countries in 1948, with the purpose of granting scholarships to Mexican students to pursue advanced studies in the United States. As a result, in 1990, the United States-Mexico Commission for Educational and Cultural Exchange (COMEXUS) was created, through which economic resources provided by both countries are administered (Fulbright, 2007). Hence, the program has promoted the creation of academic cross-border networks between the two countries.

Thus academic relations between Mexico and the u.s. have been strong despite the asymmetries in economic and educational systems. In the mid-nineties, during a symposium of rectors, directors and presidents on the collaboration between institutions in Mexico and the United States, a pattern for collaboration of border HEIs was identified. This collaboration has leaned toward the specialized integration of successful programs (Mungaray and Green, 1997). As proof of this, the Universidad Autonoma de Coahuila (UAC) and the University of Texas A&M signed an agreement to promote and advance a master's in regional economics, registered in the Padrón de Excelencia del Posgrado del CONACYT (Graduate Studies Excellence Roll, Davila, 1997).

Such actions are indications of the spirit and willingness for academic cooperation, for creating an enabling environment and maximizing the capabilities of students, teachers and administrators. The University of Texas also, recognizing the need for bi-national understanding on higher education, in 1986 requested of Texas authorities special treatment for non-resident Mexican students in the United States. The legislature approved the “special treatment” consisting in the reduction of tuition fees, thus promoting this group’s participation in university programs in Texas (Natalicio, 1997). According to these practices, the key to their realization has been the fact that these outreach efforts, do not depend on deans alone, but on faculty, student and Texas’ interests in promoting this type of integration.

No doubt these networking examples share an impulse for internationalization. On the one hand, Mexico’s desire to increase the quality of education through raising the educational level of its full-time faculty, and secondly, the concern of the United States for providing an international experience to its students, come together and pool efforts to develop innovative programs with the results being the formation of one or more networks of cooperation (Mungaray and Green, 1997).

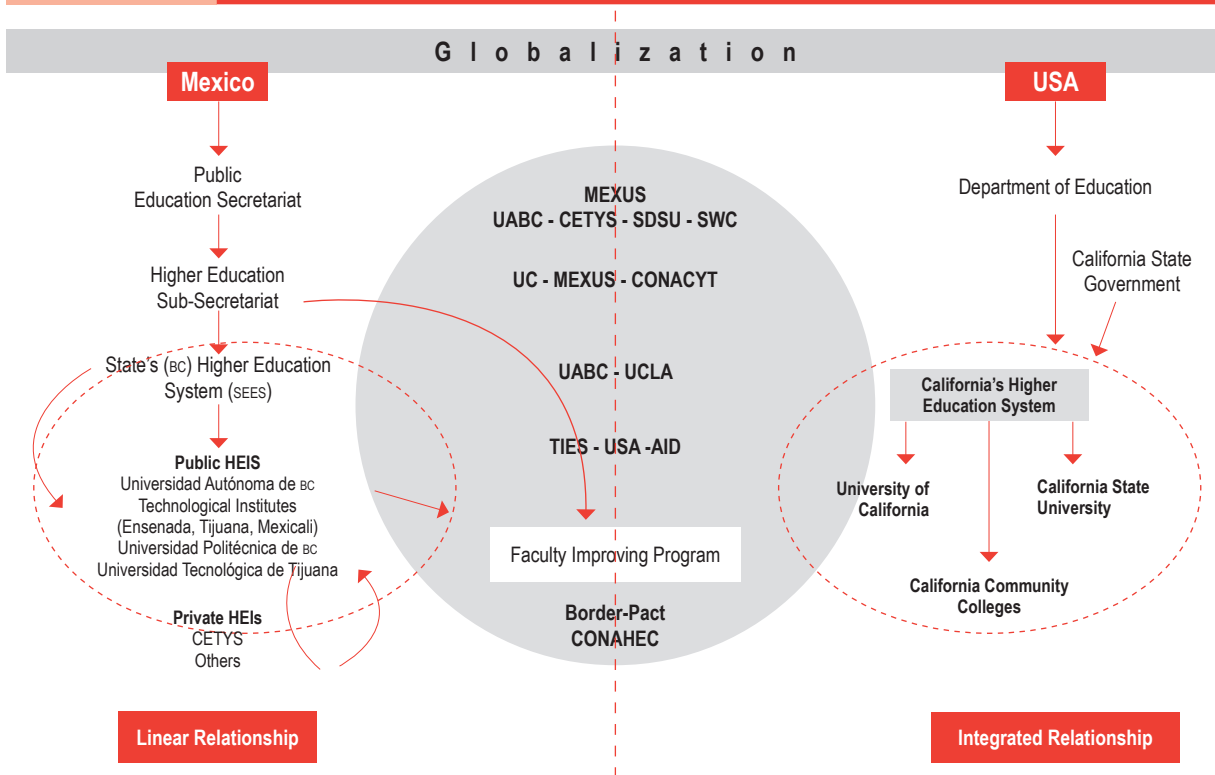
On the other hand, the intense relationship between the Universidad Autónoma de Baja California and San Diego State University has created the Cross-Border Public Administration and Governance Master’s Degree program, with the support of the international program Training, Internships, Exchanges and Scholarships (TIES), the United States Agency for International Development (USAID), the U.S. Embassy in Mexico and the Association Liaison Office. The purpose of this program is to provide a common training to students from both sides of the border to raise standards of governance in the Baja California and California border region (Moctezuma, 2004 and Moctezuma, *et al.* 2006).

The relationship’s intensity and the need to respond to a complex world, has encouraged the formation of cross-border linkages allowing public institutions in different federal systems like the UABC and SDSU, to partner and manage internal changes for the successful implementation of their curricula. For their part, private HEIs with higher capacities such as the Centre for Technical and Higher Education (CETYS), take advantage of the institutional framework for cooperation and collaboration to establish ties with California border HEIs. In this context the program UC-MEXUS stands out, supported by CONACYT and TIES-USAID funds for scholarships that encourage transnational practices. The multiplier effects are seen when institutions such as the Consortium for North American Higher Education Collaboration (CONAHEC) through the Border-Pact, are involved in promoting scientific and technological development through the assessment and funding of border research projects.

The following diagram displays the links between higher education institutions and other stakeholders involved in the border area from a network perspective.

Scheme 1

Border cooperation and integration in higher education between Baja California and California



Fuente: Navarro (2008).

## Assessing the internationalization of Baja California HEIs in a cross-border context

**H**EIS, as implementers of public education policy, become producers of new avenues of analysis. Through the network approach, using Rhodes and Marsh (1992) typology, it becomes possible to capture the diversity of forms and the intermediation of interests between sectors and describe stakeholders in decision-making for establishing network and policy products (Chaques, 2004).

International relations can produce border networks in higher education, as universities, colleges and institutes located in border areas work towards establishing formal and informal links with other HEIS in the neighboring region.

While Mexico's public universities have a high degree of awareness on the importance of internationalization, they have limitations regarding organizational structures as well as in the implementation of these activities with the proper operating manuals for it. Most commonly it is found that

HEIS have features characteristic of different models such as the UABC, which meets some elements described by Knight (1994) and Davis (1995), as a result of the administrative reform carried out during the 2002-2006 rectorate.

The administrative reorganization sought to transform directorates into coordinations as an institutional policy mechanism for the creation of a unit devoted exclusively to the activities of international cooperation and academic exchange. Although these activities had been carried out previously, these practices were emerging, classified as ad hoc activities. Currently, UABC has determined the following indicators: a) Office responsible for the internationalization activities, established in the organizational structure; b) Specific and distinct functions for internationalization; c) Program for student and academic mobility; d) Annual convocation for student and academic mobility with financial support; e) International context in the institutional development plan (IDP) and in the institutional policy on educational quality and equity; f) It considers the results from UNESCO's 1992 International Education Development Committee Report in the UABC educational model (2006).

For the UABC, the establishment of formal ties with other HEIS in the world is an important mechanism that gives society greater capabilities and options for higher quality education. In this regard, in 2006, UABC had thirty agreements with HEIS in the United States, of which 21 are dated for renewal or termination, 16 are agreements with HEIS in California, one of which corresponds to the COMEXUS program within the framework of trilateral cooperation between Mexico, the U.S. and Canada, and three in Arizona. It can be said that through these formal frameworks, the UABC has helped increase the flow of academic and student mobility across borders within the cross-border process, according to the intensification of relations in the border region with California and Arizona.

By 2008, relationships have differentiated by area of expertise, both in research and student and academic mobility. In this sense, the UABC has international links with HEIS in the world, with a distribution percentage of 39.6% in Latin America and Central America, 45% in Europe, 10.8% in North America and 3.6% in Oceania and Asia. An important feature is that on average, the agreements have a duration of 4.92 years (Table 2). These indicators represent the institutional capacity building internally and externally.

**Table 2**  
**HEIS and countries that had agreements with the UABC in 2008**

Country	Type of Agreement	Institution	Starting Date	Duration
Argentina	3 = G	Universidad de Buenos Aires, Universidad Autónoma de Entre Ríos, Universidad Nacional del Centro de la Provincia de Buenos Aires	2006/12/04	3 years
	3 = E		2004/10/15	5 years
	Total = 6		2006/07/25	5 years
Australia	2=G	Flinders University, University of South Australia	2006/07/14	3 years
			2005/11/09	3 years
Austria	1=G 1=E Total =2	Johannes Kepler Universität Linz	2006/03/06	3 years
Brasil	1=G 1=E Total =2	Universidade de Brasilia	2006/09/29	5 years
Canada	5=G	Canadian Food Inspection Agency,	2006/03/01	5 years
		Canadian Food Inspection Agency,	2004/10/22	5 years
		Mount Royal College	2004/03/24	5 years
		New Brunswick Community College	2003/09/27	5 years
		University of Quebec in Montreal UQAM	2005/12/14	3 years
Chile	13 = G	Pontificia Universidad Católica de Valparaiso,	2005/06/30	5 years
		Universidad Austral de Chile,	2006/06/05	5 years
		Universidad Católica del Norte,	2005/03/08	4 years
		Universidad de Chile	2006/04/06	5 years
		Universidad de Santiago de Chile	2006/04/05	5 years
		Universidad de Tarapaca UAT,	2006/04/05	5 years
		Universidad de Valparaiso,	2005/10/20	5 years
		Universidad La Serena,	2007/10/25	5 years
		Universidad Metropolitana de Ciencias Educativas,	2006/04/01	5 years
		2004/10/20	5 years	
		Pontificia Universidad Católica de Chile, Pontificia Universidad Católica Valparaiso- SDSU-UABC	2006/04/07	4 years
			2006/07/19	5 years
China	1=G	Virology Institute of Wuhan -Chinese Academy of Science	2005/05/12	5 Años
Colombia	4=G 2=E Total =6	Escuela Naval de Colombia, Escuela de Ingeniería de Antioquia, Universidad de Antioquia, Universidad Santiago de Cali	2004/05/01	5 years
			2006/11/30	5 years
			2005/12/12	5 years
			2007/02/27	5 years
Costa Rica	2=G 1=G Total = 3	Universidad Estatal a Distancia, Universidad Internacional de las Américas	2006/10/12	9 years
			2007/05/30	5 years
Cuba	3=G 2=E Total= 5	Universidad Cienfuegos, Universidad Central "Marta Abreu" de las Villas, Universidad de Oriente	2006/10/27	5 years
			2006/11/30	5 years
			2005/10/24	5 years
Ecuador	3=G	Escuela Superior Politécnica de Chimborazo, Universidad Espíritu Santo "UEES", Universidad de Especialidades Espíritu Santo "UEES"	2006/11/22	5 years
			2007/08/02	5 years
			2007/08/02	5 years
El Salvador	3=G	Universidad Francisco Gavidia	2006/12/15	5 years
England	1=G	British Council	2004/08/19	5 years

<b>France</b>	3=G	AGRO Montpellier (AGRO), L'Université Claude Bernard Lyon 1, Université Montpellier II	2006/02/28 2006/08/23 2005/10/12	9 years 5 years 5 years
<b>Germany</b>	1= G	German Academic Exchange Service DAAD- G	2007/02/28	5 years
<b>Israel</b>	1=G	Ben Gourion University	2005/04/05	5 years
<b>Italia</b>	1=G	Universita Degli Studi di Firenze	2007/03/14	5 years
<b>Kosovo</b>	1=G	Universidad de Pristina	2006/12/11	5 years
<b>Paraguay</b>	1=G	Universidad Autónoma de Asunción	2007/10/22	3 years
<b>Rusia</b>	1=G	Radio and Electronic Engineering Institute of the Russian Academy of Science "RAS"	2007/03/23	5 years
<b>Spain</b>	19=G 20=E Total= 39	Escola d hoteleria de les Illes Balears,	2005/10/20	3 years
		Fundación Innova (IFV),	2005/10/17	5 years
		Universidad Castilla de la Mancha,	2006/06/19	5 years
		Universidad Da Coruña,	2008/02/18	4 years
		Universidad de Cádiz,	2004/04/28	5 years
		Universidad de Alcalá de Henares,	2005/12/14	5 years
		Universidad de Almería,	2005/10/19	5 years
		Universidad de Burgos,	2006/10/11	5 years
		Universidad de Cantabria,	2006/02/13	5 years
		Universidad de Extremadura,	2004/12/13	5 years
		Universidad de Granada,	2004/10/26	5 years
		Universidad de Salamanca,	2006/02/23	5 years
		Universidad de Vigo,	2007/05/14	4 years
		Universidad Politécnica de Catalunya,	2007/11/16	5 years
		Universidad Politécnica de Madrid,	2007/12/14	5 years
Universidad Politécnica de Valencia,	2007/10/17	4 years		
Universidad San Jorge. Zaragoza,	2006/08/08	5 years		
Universidad Santiago de Compostela,	2004/05/27	5 years		
Universitat Les Illes Balears,	2005/10/20	5 years		
Universidad Autónoma de Barcelona,	2007/11/07	4 years		
Universidad de Zaragoza,	2007/07/27	5 years		
Universidad del País Vasco	2006/12/04	3 years		
<b>Tailandia</b>	1=G 1=E Total =2	Yonok University	2008/02/07	9 years
<b>United States</b>	6=G 1=E Total = 7	Arizona State University,	2004/08/09	5 years
		California State Politechnic University, Pomona,	2005/03/15	5 years
		Montana State University-Bozeman,	2006/10/23	5 years
		New Mexico State University,	2007/02/27	5 years
		North Carolina State University,	2005/06/27	5 years
		The Academy of The Americas for Cultural and Linguistics Studies, University of California - ANR	2005/11/28 2005/06/01	5 years 5 years
<b>Uruguay</b>	1=G 1=E Total=2	Universidad de la República,	2007/06/25	9 years
		Universidad de Montevideo	2007/03/22	5 years

Based on data from the official website of the Coordination of International Cooperation and Academic Exchange of the UAE. Retrieved June 12, 2006.  
G: General Agreement, and S: Specific Agreement.

In terms of across-the-border activities there are 9 general and specific international cooperation agreements recorded with u.s. universities, six of which are with border institutions. The intense relationship with San Diego State University (SDSU) stands out. The average duration is 5 years (Table 3).

**Table 3**  
**HEIS in California that had agreements with the UABC in 2008**

University	Agreement	Fecha de Inicio	Duración
Arizona State University	General Collaboration Agreement	2004/08/09	5 Años
California State Polytechnic University, Pomona	General Collaboration Agreement, renewed on 11/18/1997	2005/03/15	5 Años
New Mexico State University	General Collaboration Agreement	2007/02/27	5 Años
Arizona State University	Student Exchange	2004/08/09	5 Años
San Diego State University	Specific Agreement for the mexus Program, renewed on 02/10/2001. "sub-Agreements 1 y 4"	2007/01/29	5 Años
San Diego State University	Student Exchange Sub-Agreement #7 y #3, renewed on 12/12/2002	2007/12/12	5 Años

Source: Based on data from the official website of the Coordination of International Cooperation and Academic Exchange of the UABC. Retrieved June 12, 2006.

The decrease in the number of UABC agreements with California's border region HEIS, reflects highly specialized academic relationships as well as what key players in the field look for. In this sense, expressions of cooperation and collaboration to carry out and implement undergraduate and graduate double degrees stand out. At the undergraduate level, cross-border relations have allowed for mechanisms of double, and even, the International Business program triple degree program with SDSU and the University of Valparaiso in Chile.

For UNESCO, when two institutions from different countries agree to carry out a program of higher education this is defined as cross-border higher education, allowing the teacher, student, program, or institution to develop a course in these circumstances (UNESCO / OECD, 2005). The MEXUS program was created in an effort to support collaboration and cross-border international academic exchange between the UABC, CETYS, SDSU and the South Western College (SWC) jointly promoting the dual degree program in International Business. When MEXUS was created the four institutions were involved, currently UABC and CETYS operate separately, albeit in collaboration with the afore mentioned U.S. institutions. The implementation of a strategy to improve the skills of graduates in the field of business created a cross-border student network where institutions share a common purpose and institutional understandings. The institutional maturity acquired by UABC at 50 years since its inception as well as the 111 years of SDSU made the operation of this dual degree program possible.



The activities recorded in the operating results involve people from over fourteen generations of graduates, totaling 115, of which 76 students are from UABC, 58 of them have obtained their bachelor's degree from SDSU and 49 from UABC. At SDSU, 39 students have participated, of which 36 already have a bachelor's degree in International Business at SDSU, one at the UABC and the rest are in the process of obtaining their degree (Talavera *et al.* 2007). Moreover, even if CETYS shows no results in relation to the number of students who have been awarded a double degree in International Business, in its official Web site, its relationship as a private institution in Baja California with two of California's public institutions has been highlighted (Table 4).

**Table 4**  
**Cross-Border Network** MEXUS: UABC-CETYS-SDSU-SWC

Dimension	Engaged Community
1.- Number of Participants	Limited: In terms of demand, CETYS serves a high socioeconomic strata.  Broad: UABC responds to the social demand associated with being a public institution.
2.- Type of interest:	Economic/Professional: In terms of profitability, interest for CETYS is obvious, first because it is a private institution serving the elite and second because it is traditionally associated with the business sector, it pursues the training of highly specialized professionals.  UABC's interests are directly linked to complying with the functional activities of the state as well as the institutional goals of promoting student mobility and academic exchange with HEIS belonging to the higher education system in California (this includes three subsystems).
3.- Integration:	
Rate of Contacts	High and high quality.
Continuity of Participants	High.
Consensus	High due to common values.
4.- Resources:	
Distribution of resources within policy network	All participants have available resources: material, human and financial.
Distribution of resources within participant institutions	Each participating institution has a different degree of resources at its disposal. Yet there is one that has more resources than the others and thus exerts pressure over the rest of the network participants
5.- Power Distribution:	There is positive balance of power. On the one hand the existence of this equilibrium enables collaboration of institutions involved to achieve a common goal, to encourage, promote and support collaboration and academic exchange between California's HEIS campuses and Mexican HEIS.

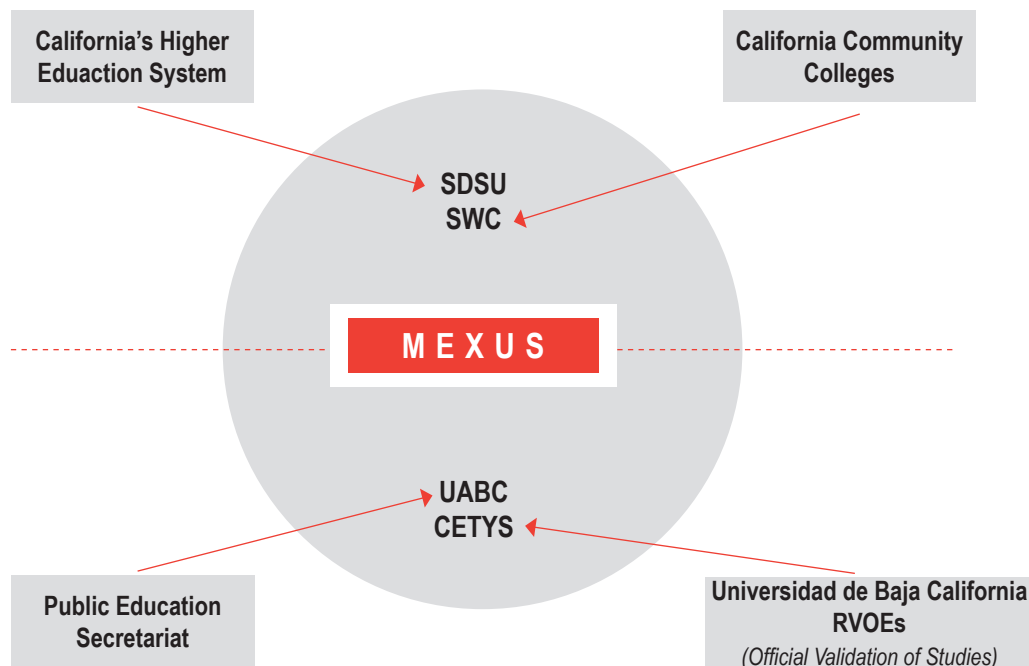
Source: Prepared based on the typology by Rhodes and Marsh (1992).

The number of participants in the network is limited because the educational CETYS application is associated with the economic status of the student applying to enter this institution. The demand covered by the UABC is broad for it absorbs 73% of state enrollment (ANUIES, 2007). In this sense the interest of each actor is linked to the common goal of promoting academic exchanges. On the part of CETYS interest is also associated with the business education of graduates, while the interest of UABC is in increasing their adaptability and business ethos in accordance with its educational model. For government actors in Mexico, the interest is in assuring the quality of educational services.

The integration of the participants in the network is good because results can be measured and there is a consensus on the implementation of policies. Resources available include human, financial and material. In this regard, CETYS as a private institution, does not receive public funding, while the UABC, in addition to public funding, has other means of generating its own resources. The dual undergraduate degree through the MEXUS program allows students to pursue half of their studies in international business at CETYS or UABC (in Mexico) and the other half at SWC and/or SDSU (in the U.S.). The arrangement respects the tuition of the institution of origin, which allows institutional expenses and income to be offset. The majority of financial resources come mostly from donations received and tuition fees.

Scheme 2

MEXUS network of cross-border higher education



Source: Authors

This network highlights the ability to reach agreements between public and private higher education institutions that have distinguished themselves by having sufficient levels of institutional maturity. Although the distribution of power in the network depends on the role played by each participant, in Mexico the state education system is responsible for granting permits to private HEIS, which in order to operate are subjected to the rules set by federal institutions. In this sense CETYS has sought alternate routes to maintain its educational prestige through adopting institutional policies.

## Final Thoughts

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Undoubtedly, the process of internationalization of higher education expressed through the reform and innovation of HEIS has been intensified by the pressures, influences and tensions exerted by globalization. These elements allow us to understand its effects in border areas, where examples of academic and student mobility between the border universities of California and Baja California represent a bridge to understand the influence globalization has on higher education. This influence however, is all the more specific in terms of management systems, when HEIS are encouraged to generate structural changes to timely respond to the complex internationalized environment, while meeting the responsibility of fulfilling the state's educational duties (Guerrero, 2000).

The UABC, in responding to the social logic of being a public decentralized agency, has a high degree of institutional awareness of internationalization derived from the implementation of federal policies for educational quality and internal management best practices. The implementation of international elements are embedded in its organizational structure, having defined operational areas for activities of academic and student mobility while integrating into the curriculum a system of credits and the recognition of academic programs with a global vision. Therefore, the adoption of an international academic model with internal and external elements, allows a virtuous circle to form that promotes academic feedback and institutional positioning.

An important conclusion is that the phenomena of globalization are generating their own institutional incentives in different sectors, for their part HEIS have sought new ways for self-improvement, which are then measured in their evaluation processes, both internal and external. Thus, in terms of applying for and obtaining federal resources, HEIS that register for articulate and systematized activities of internationalization tend to perform better on assessments by accreditation bodies, which translates into more financial resources for their operation. This virtuous circle serves students as it prepares them to respond to complex situations that may arise in their environment. In operational terms, as observed in the case of UABC, these institutional changes can be observed both in its administrative structure and processes. Hence the importance of the international element in the HEIS paths of action contributes to creating incentives for both academic and student mobility, which are preceded by a set of policies embodied in agreements for international cooperation.

Based on this institutional awareness, an administrative advantage in terms of further internationalization is that complex processes are systematized, allowing staff to be more efficient operating and expanding their tasks, mainly through promotional matters.

The social impact over the long term aims to generate virtuous circles of access, work and cultural advantages, by the mere fact that an increasing number of students have the opportunity to travel to different countries and experience both the challenges of academic as well as cultural adaptation, thus impacting their usual patterns of life.

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